the Space Shuttle *Columbia,* NASA and the American people have refused to abandon the pursuit of knowledge of our universe. On October 1, 1958, the National Aeronautics and Space Administration began operation. At the time it consisted of only about 8,000 employees and an annual budget of $100 million. Over the next 50 years, NASA and the Jet Propulsion Laboratory have been involved in many defining events occurred which have shaped the course of human history and demonstrated to the world the character of the people of the United States.

Many of us remember how inspired we were when on May 25, 1961, President John F. Kennedy proclaimed: "I believe this Nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish. "The success of the United States space exploration program in the 20th Century augurs well for its continued leadership in the 21st Century. This success is largely attributable to the remarkable and indispensable partnership between the National Aeronautics, and Space Administration and its 10 space and research centers. One of these important research centers is located in my home city of Houston. The Johnson Space Center, which manages the development, testing, production, and delivery of all United States human spacecraft and all human spacecraft-related functions, is one of the crown jewels of the Houston area.

Today, NASA is the Nations' primary civil space and aeronautics research and development agency, and its current activities employ over 18,000 Americans. Today's legislation reaffirms the fundamental operating principles of NASA, emphasizes the importance of NASA leadership in a range of endeavors such as Earth observations and research, aeronautics reach and development, and an exploration program.

Always on the forefront of technological innovation, NASA has been home to countless "firsts" in the field of space exploration. America has, countless times, proven itself to be a leader in innovation, and many technologies that have become part of our everyday lives were developed by NASA scientists. The benefits of NASA's programming and innovation are felt far beyond scientific and academic spheres. Space technologies provide practical, tangible benefits to society, and NASA provides valuable opportunities to businesses in our community.

I strongly urge my colleagues to join me in support of this legislation, and in support of the future of American innovation and exploration.

Mr. LAMPSON. Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Texas (Mr. LAMPSON) that the House suspend the rules and agree to the resolution, H. Res. 1315.

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. LAMPSON. Mr. 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 and the Chair's prior announcement, further proceedings on this motion will be postponed.

FEDERAL OCEAN ACIDIFICATION RESEARCH AND MONITORING ACT OF 2008

Mr. BAIRD. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 4174) to establish an interagency committee to develop an ocean acidification research and monitoring plan and to establish an ocean acidification program within the National Oceanic and Atmospheric Administration, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 4174

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

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Federal Ocean Acidification Research And Monitoring Act of 2008" or the "FOARAM Act".

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.
Sec. 2. Findings and purposes.
Sec. 3. Definitions.
Sec. 4. Interagency subcommittee.
Sec. 5. Strategic research plan.
Sec. 6. NOAA ocean acidification activities.
Sec. 7. NSF ocean acidification activities.
Sec. 8. NASA ocean acidification activities.
Sec. 9. Authorization of appropriations.

SEC. 2. FINDINGS AND PURPOSES.

(a) FINDINGS.—The Congress finds the following:

(1) The oceans help regulate atmospheric chemistry by acting as the largest sink for carbon dioxide.

(2) The rapid increase in atmospheric carbon dioxide is overwhelming the natural ability of the oceans to absorb this gas.

(3) The influx of carbon dioxide into the atmosphere and the subsequent absorption by the oceans is changing surface ocean carbon chemistry and lowering the pH. These changes in ocean chemistry are detrimental to organisms including corals, which support one of the richest habitats on Earth, marine shellfish, and many other organisms that form the base of the food chain for many fish and marine mammals.

(4) The rich biodiversity of marine organisms is an important contribution to the national economy and the change in ocean chemistry threatens tourism, our fisheries, and marine environmental quality, and could result in significant social and economic costs.

(5) Existing Federal programs support research in related ocean chemistry, but gaps in funding, coordination, and outreach have impeded national progress in addressing ocean acidification.

(6) National investment in a coordinated program of research and monitoring would improve the understanding of ocean acidification effects on whole ecosystems, advance our knowledge of the socioeconomic impacts of increased ocean acidification, and strengthen the ability of marine resource managers to assess and prepare for the harmful impacts of ocean acidification on our marine resources.

(b) PURPOSES.—The purposes of this Act are to provide for—

(1) development and coordination of a comprehensive interagency plan to—

(A) monitor and conduct research on the processes and consequences of ocean acidification on marine organisms and ecosystems; and

(B) establish an interagency research and monitoring program on ocean acidification;

(2) assessment and consideration of regional and national ecosystem and socioeconomic impacts of increased ocean acidification; and

(3) research on adaptation strategies and techniques for effectively conserving marine ecosystems as they cope with increased ocean acidification.

SEC. 3. DEFINITIONS.

In this Act:

(1) OCEAN ACIDIFICATION.—The term "ocean acidification" means the decrease in pH of the Earth's oceans and changes in ocean chemistry caused by chemical inputs from the atmosphere, including carbon dioxide.

(2) SECRETARY.—The term "Secretary" means the Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration.

(3) SUBCOMMITTEE.—The term "Subcommittee" means the Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council.

SEC. 4. INTERAGENCY SUBCOMMITTEE.

(a) DESIGNATION.—The Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council shall coordinate Federal activities on ocean acidification.

(b) DUTIES.—The Subcommittee shall—

(1) develop the strategic research and monitoring plan to guide Federal research on ocean acidification required under section 5 of this Act and oversee the implementation of the plan;

(2) oversee the development of—

(A) an assessment of the potential impacts of ocean acidification on marine organisms and marine ecosystems; and

(B) adaptation and mitigation strategies to conserve marine organisms and ecosystems exposed to ocean acidification;

(3) facilitate communication and outreach opportunities with nongovernmental organizations and members of the stakeholder community with interests in marine resources;

(4) coordinate the United States Federal research and monitoring program with research and monitoring programs and scientists from other nations; and

(5) establish or designate an Ocean Acidification Information Exchange to make information on ocean acidification developed through or utilized by the interagency ocean acidification program accessible through electronic means, including information which would be useful to policymakers, researchers, and other stakeholders in mitigating or adapting to the impacts of ocean acidification.

(c) REPORTS TO CONGRESS.—

(1) INITIAL REPORT.—Not later than 1 year after the date of enactment of this Act, the Subcommittee shall transmit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science and Technology and the Committee on Natural Resources of the House of Representatives that—

(A) includes a summary of federally funded ocean acidification research and monitoring activities, including the budget for each of these activities; and

(B) describes the progress in developing the plan required under section 5 of this Act.

(2) BIENNIAL REPORT.—Not later than 2 years after the delivery of the initial report

under paragraph (1) and every 2 years thereafter, the Subcommittee shall transmit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science and Technology and the Committee on Natural Resources of the House of Representatives that includes—

(A) a summary of federally funded ocean acidification research and monitoring activities, including the budget for each of these activities; and

(B) an analysis of the progress made toward achieving the goals and priorities for the interagency research plan developed by the Subcommittee under section 5.

(3) STRATEGIC RESEARCH PLAN.—Not later than 2 years after the date of enactment of this Act, the Subcommittee shall transmit the strategic research plan developed under section 5 to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science and Technology and the Committee on Natural Resources of the House of Representatives. A revised plan shall be submitted at least once every 5 years thereafter.

SEC. 5. STRATEGIC RESEARCH PLAN.

(a) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Subcommittee shall develop a strategic plan for Federal research and monitoring on ocean acidification that will provide for an assessment of the impacts of ocean acidification on marine organisms and marine ecosystems and the development of adaptation and mitigation strategies to conserve marine organisms and marine ecosystems. In developing the plan, the Subcommittee shall consider and use information, reports, and studies of ocean acidification that have identified research and monitoring needed to better understand ocean acidification and its potential impacts, and recommendations made by the National Academy of Sciences in the review of the plan required under subsection (d).

(b) CONTENTS OF THE PLAN.—The plan shall—

(1) establish, for the 10-year period beginning in the year the plan is submitted, the goals and priorities for Federal research and monitoring which will—

(A) advance understanding of ocean acidification and its physical, chemical, and biological impacts on marine organisms and marine ecosystems;

(B) improve the ability to assess the socioeconomic impacts of ocean acidification; and

(C) provide information for the development of adaptation and mitigation strategies to conserve marine organisms and marine ecosystems;

(2) describe specific activities, including—

(A) efforts to determine user needs;

(B) research activities;

(C) monitoring activities;

(D) technology and methods development;

(E) data collection;

(F) database development;

(G) modeling activities;

(H) assessment of ocean acidification impacts; and

(I) participation in international research efforts;

(3) identify relevant programs and activities of the Federal agencies that contribute to the interagency program directly and indirectly and set forth the role of each Federal agency in implementing the plan;

(4) consider and utilize, as appropriate, reports and studies conducted by Federal agencies, the National Research Council, or other entities;

(5) make recommendations for the coordination of the ocean acidification research and monitoring activities of the United States with such activities of other nations and international organizations;

(6) outline budget requirements for Federal ocean acidification research and monitoring and assessment activities to be conducted by each agency under the plan;

(7) identify the monitoring systems and sampling programs currently employed in collecting data relevant to ocean acidification and prioritize additional monitoring systems that may be needed to ensure adequate data collection and monitoring of ocean acidification and its impacts; and

(8) describe specific activities designed to facilitate outreach and data and information exchange with stakeholder communities.

(c) PROGRAM ELEMENTS.—The plan shall include at a minimum the following program elements:

(1) Monitoring of ocean chemistry and biological impacts associated with ocean acidification at selected coastal and open-ocean monitoring stations, including satellite-based monitoring to characterize—

(A) marine ecosystems;

(B) changes in marine productivity; and

(C) changes in surface ocean chemistry.

(2) Research to understand the species specific physiological response of marine organisms to ocean acidification, impacts on marine food webs of ocean acidification, and to develop environmental and ecological indices that track marine ecosystem responses to ocean acidification.

(3) Modeling to predict changes in the ocean carbon cycle as a function of carbon dioxide and atmosphere-induced changes in temperature, ocean circulation, biogeochemistry, ecosystem and terrestrial input, and modeling to determine impacts on marine ecosystems and individual marine organisms.

(4) Technology development and standardization of carbonate chemistry measurements on moorings and autonomous floats.

(5) Assessment of socioeconomic impacts of ocean acidification and development of adaptation and mitigation strategies to conserve marine organisms and marine ecosystems.

(d) NATIONAL ACADEMY OF SCIENCES EVALUATION.—The Secretary shall enter into an agreement with the National Academy of Sciences to review the plan.

(e) PUBLIC PARTICIPATION.—In developing the plan, the Subcommittee shall consult with representatives of academic, State, industry and environmental groups. Not later than 90 days before the plan, or any revision thereof, is submitted to the Congress, the plan shall be published in the Federal Register for a public comment period of not less than 60 days.

SEC. 6. NOAA OCEAN ACIDIFICATION ACTIVITIES.

The Secretary shall conduct research and monitoring activities and may establish a program on ocean acidification within the National Oceanic and Atmospheric Administration consistent with the strategic research plan developed by the Subcommittee under section 5 that—

(1) includes—

(A) interdisciplinary research among the ocean and atmospheric sciences, and coordinated research and activities to improve understanding of ocean acidification;

(B) the establishment of a long-term monitoring program of ocean acidification utilizing existing global and national ocean observing assets, and adding instrumentation and sampling stations as appropriate to the aims of the research program;

(C) research to identify and develop adaptation strategies and techniques for effectively conserving marine ecosystems as they cope with increased ocean acidification;

(D) as an integral part of the research programs described in this Act, educational opportunities that encourage an interdisciplinary and international approach to exploring the impacts of ocean acidification;

(E) as an integral part of the research programs described in this Act, national public outreach activities to improve the understanding of current scientific knowledge of ocean acidification and its impacts on marine resources; and

(F) coordination of ocean acidification monitoring and impacts research with other appropriate international ocean science bodies such as the International Oceanographic Commission, the International Council for the Exploration of the Sea, the North Pacific Marine Science Organization, and others;

(2) provides grants for critical research projects that explore the effects of ocean acidification on ecosystems and the socioeconomic impacts of increased ocean acidification that are relevant to the goals and priorities of the strategic research plan; and

(3) incorporates a competitive merit-based process for awarding grants that may be conducted jointly with other participating agencies or under the National Oceanographic Partnership Program under section 7901 of title 10, United States Code.

SEC. 7. NSF OCEAN ACIDIFICATION ACTIVITIES.

(a) RESEARCH ACTIVITIES.—The Director of the National Science Foundation shall continue to carry out research activities on ocean acidification which shall support competitive, merit-based, peer-reviewed proposals for research and monitoring of ocean acidification and its impacts, including—

(1) impacts on marine organisms and marine ecosystems;

(2) impacts on ocean, coastal, and estuarine biogeochemistry; and

(3) the development of methodologies and technologies to evaluate ocean acidification and its impacts.

(b) CONSISTENCY.—The research activities shall be consistent with the strategic research plan developed by the Subcommittee under section 5.

(c) COORDINATION.—The Director shall encourage coordination of the Foundation's ocean acidification activities with such activities of other nations and international organizations.

SEC. 8. NASA OCEAN ACIDIFICATION ACTIVITIES.

(a) OCEAN ACIDIFICATION ACTIVITIES.—The Administrator of the National Aeronautics and Space Administration, in coordination with other relevant agencies, shall ensure that space-based monitoring assets are used in as productive a manner as possible for monitoring of ocean acidification and its impacts.

(b) PROGRAM CONSISTENCY.—The Administrator shall ensure that the Agency's research and monitoring activities on ocean acidification are carried out in a manner consistent with the strategic research plan developed by the Subcommittee under section 5.

(c) COORDINATION.—The Administrator shall encourage coordination of the Agency's ocean acidification activities with such activities of other nations and international organizations.

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

(a) NOAA.—There are authorized to be appropriated to the National Oceanic and Atmospheric Administration to carry out the purposes of this Act—

(1) $8,000,000 for fiscal year 2009;

(2) $12,000,000 for fiscal year 2010;

(3) $15,000,000 for fiscal year 2011; and

(4) $20,000,000 for fiscal year 2012.

(b) NSF.—There are authorized to be appropriated to the National Science Foundation to carry out the purposes of this Act—

(1) $6,000,000 for fiscal year 2009;

(2) $8,000,000 for fiscal year 2010;

(3) $12,000,000 for fiscal year 2011; and
(4) $15,000,000 for fiscal year 2012.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Washington (Mr. BAIRD) and the gentleman from Florida (Mr. FEENEY) each will control 20 minutes.

The Chair recognizes the gentleman from Washington.

GENERAL LEAVE

Mr. BAIRD. Mr. Speaker, I ask unanimous consent that all Members have 5 legislative days to revise and extend their remarks and include extraneous material on H.R. 4174, the bill now under consideration.

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

There was no objection.

Mr. BAIRD. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I would like to begin by complimenting my dear friend, Mr. ALLEN, and Mr. GILCHREST, as well as Mr. INSLEE, and particularly Mr. INGLIS, who worked so closely with me on the manager's amendment to this bill.

We have an enormous problem facing this world, and it is often neglected. This bill addresses that.

On Monday, I had the privilege of being in Fort Lauderdale at the International Society for Reef Studies, their coral reef symposium, which happens every 4 years. Based on reports there and recent studies published in Science and other leading journals, it is clear that although ocean acidification is not often talked about, it may well be a challenge as great or perhaps even greater as climate change.

Approximately one-half of the carbon dioxide released by burning fossil fuels has been absorbed by the oceans. The good news is that this absorption has helped reduce and delay the impact of global warming. The bad news, however, is that the absorption of atmospheric carbon dioxide has caused and will continue to cause changes in ocean chemistry.

The disruption in ocean chemistry causes the pH to decrease and results in a phenomenon identified as ocean acidification. According to the National Oceanic and Atmospheric Administration, ocean hydrogen ion concentration, a measure of acidity, has increased 30 percent since industrialization. Studies have projected that by the end of the century, carbon dioxide emission scenarios could result in the lowest levels of ocean pH in 20 million years.

The potential impacts of acidification are diverse and far-reaching. These impacts include adverse effects on marine ecosystems, food webs for many fish and marine mammals, and the economies of many coastal States that rely upon the seafood industry and coastal and ocean tourism.

Increasing acidity and changes in ocean chemistry are also corrosive to corals and shell-forming plankton, a major food source for baleen whales and commercially important fish species such as salmon, mackerel, herring, cod and others.

Some studies have also suggested that ocean acidification could be detrimental to shellfish, including scallops, clams, oysters and lobsters. Evidence shows that calcification rates will decrease and carbon dissolution rates will increase for these calcifying organisms leaving them unable to compete ecologically, perhaps even threatening them to the point of extinction.

Shallow water corals face similar threats due to decreased ocean rates and increased shell corrosion. Corals comprise some of the richest habitats on Earth. According to NOAA, about 4,000 species of fish, including approximately half of all federally managed fisheries, depend on coral reefs and their related habitat for a portion of their life cycles.

Juvenile fish may face physiological challenges, including respiratory stress and acidosis associated with increased acidification. Deep sea corals and other animals are also threatened by changes in chemistry, and may find parts of the deep ocean uninhabitable by the end of the century.

We must do more to assess this grave problem. There is significant uncertainty as to the rate and magnitude of change that will occur, but national investment in a coordinated program of research and monitoring could improve the understanding of ecosystem responses, assess socioeconomic impacts due to increasing acidification, and provide resource managers the information they need to develop strategies and protect these critical species.

That's why I have joined Representatives ALLEN, INSLEE, and others, in introducing the Federal Ocean Acidification Research and Monitoring Act. This bill establishes an interagency program through the Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council to develop and coordinate a comprehensive plan to better understand and address the impacts of acidification, to provide for assessment of ecosystem and socioeconomic impact of ocean acidification, and to provide for research on adaptation strategies to conserve marine resources. It also directs NOAA, the National Science Foundation, and NASA to conduct research and monitoring activities on ocean acidification consistent with the strategic plan developed by the subcommittee.

I want to thank the researchers who have led the way on this important topic, also my fellow sponsors for their important work, and particularly Chairman GORDON and the other members of the Science and Technology Committee for moving this bill and getting it to the floor.

Finally, I want to thank the Science Committee staff, including Jean Fruci, Shimere Williams on the majority staff, and my own staff member, Hillary Cain.

With that, Mr. Speaker, I reserve the balance of my time.

Mr. FEENEY. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, since the beginning of the industrial revolution, the oceans have been the largest sink of increased carbon dioxide in the atmosphere. This is a valuable natural function. When the oceans absorb carbon dioxide, it lowers the pH of the water. Although the increased acidity of the oceans to date has not been significant, many in the ocean science community are concerned about the rate of change that they have witnessed.

H.R. 4174 organizes Federal activities on ocean acidification research. It is intended to provide a blueprint for research and monitoring efforts at the Federal level, and encourage international cooperation for a global problem.

We have an obligation to ourselves and to future generations to make informed decisions on something as serious as the health and welfare of our oceans, but at this point, we do not know enough to make those decisions. We do not know how much the ocean's chemistry is going to change, how fast it will change, or what the impacts of this change will be on marine life or the health of marine ecosystems. We also do not know how all of this will affect mankind's reliance on the ocean for food, for industry, and for energy resources. How can we possibly engage in serious discussions about mitigation and adoption strategies if we do not know these important things?

Passing the Federal Ocean Acidification Research and Monitoring Act is the first step we need to take to collect this vital information. The legislation directs the Joint Subcommittee on Ocean Science and Technology, or JSOST, to coordinate all Federal research and monitoring activities. The subcommittee is co-chaired by the National Oceanic and Atmospheric Administration, NOAA, the National Science Foundation, NSF, and the Office of Science and Technology Policy in the White House. These are the three agencies that should be most involved in ocean acidification research.

This bill requires JSOST to develop a strategic research plan with an eye toward being able to produce useable products to the fishing industry, the energy industry, policy makers, and other shareholders at some point in the future. This strategic plan is not meant to reinvent the wheel. It should be based on several research road maps that have already been developed by other institutions.

The legislation authorizes NOAA to continue its ocean acidification research and monitoring activities as long as such activities are consistent with the strategic research plan. It also authorizes funding for NSF to provide research grants for ocean acidification. And it directs NASA to focus resources on ocean acidification monitoring in future Earth observation missions.

Most importantly, H.R. 4174 requires that JSOST and NOAA coordinate U.S.

ocean acidification research and monitoring efforts with those in the international community. Many countries are currently in the same place as we are, organizing their research efforts and laying out road maps for the future. Just last month, the European Union launched the European Ocean Acidification Project, an initiative to investigate ocean acidification and its consequences.

The U.S. should not have to bear the full and sole burden for global environmental problems. International cooperation ensures that resources and funding are distributed among many nations so that all may benefit from the increase in understanding of ocean acidification.

I urge all of my colleagues to support H.R. 4174.

Mr. Speaker, I reserve the balance of my time.

Mr. BAIRD. Mr. Speaker, I want to particularly compliment the Chair of the Resources Committee, Chairman RAHALL, for his collaboration on this. At this point I would like to place in the RECORD letters exchanged between the Resources Committee and the Science Committee.

HOUSE OF REPRESENTATIVES, COMMITTEE ON NATURAL RESOURCES,
Washington, DC, July 7,2008.

Hon. BART GORDON,
Chairman, Committee on Science and Technology, Washington, DC.

DEAR MR. CHAIRMAN: Thank you for the opportunity to work with you on H.R. 4174, the Federal Ocean Acidification Research and Monitoring Act of 2008, concerning provisions regarding the establishment and maintenance of an ocean acidification program which are within the jurisdiction of the Committee on Natural Resources.

Because of the continued cooperation and consideration that you have afforded me and my staff in developing these provisions, I will not seek a sequential referral of H.R. 4174. Of course, this waiver is not intended to prejudice any future jurisdictional claims over these provisions or similar language. I also reserve the right to seek to have conferees named from the Committee on Natural Resources on these provisions, and request your support if such a request is made.

Please place this letter into the committee report on H.R. 4174 and into the Congressional Record during consideration of the measure on the House floor.

With warm regards, I am,

Sincerely,

NICK J. RAHALL II,
Chairman, Committee on Natural Resources.

HOUSE OF REPRESENTATIVES, COMMITTEE ON SCIENCE AND TECHNOLOGY,
Washington, DC, July 8, 2008.

Hon. NICK J. RAHALL II,
Chairman, Committee on Natural Resources, House of Representatives, Washington, DC

DEAR CHAIRMAN RAHALL: Thank you for working with me to allow floor consideration of H.R. 4174, the Federal Ocean Acidification Research and Monitoring Act of 2008, to proceed.

I appreciate your willingness to waive your Committee's right to a referral of H.R. 4174, and acknowledge that this waiver does not prejudice any further jurisdictional claims by your Committee over this legislation or similar language. Furthermore, I agree to support your request for appointment of conferees from the Committee on Natural Resources if a conference is held on this matter.

A copy of this letter and your response will be placed in the Committee report on H.R. 4174 and in the Congressional Record during consideration of the bill on the House floor.

I look forward to working with you as we prepare to pass this important legislation.

Sincerely,

BART GORDON,
Chairman.

Mr. Speaker, I yield 4 minutes to the lead sponsor of this legislation and a tireless and effective advocate for all things related to the ocean's health, Representative ALLEN from Maine.

Mr. ALLEN. Mr. Speaker, I thank the gentleman for yielding and for his outstanding leadership on this important issue.

I also rise to urge passage of my bill, H.R. 4174, the Federal Ocean Acidification Research and Monitoring Act.

I want to commend Chairman GORDON and Chairman LAMPSON of the Science and Technology Committee for their leadership and foresight in supporting this legislation to give us the tools we need to manage and protect our marine resources and coastal communities.

I also want to thank Mr. HALL and Mr. INGLIS for their support on this bipartisan legislation. And also, once again, I want to thank Mr. INSLEE and Mr. BAIRD for their leadership.

Finally, I guess I should say a special thank you to Ellen Bolen on my staff, my now Sea Grant fellow who has worked so hard on this particular bill.

My legislation establishes a comprehensive, interagency program to conduct research on the processes and consequences of ocean acidification due to global climate change.

Ocean acidification has the potential to profoundly change our ocean ecosystems and may seriously and negatively affect commercial and recreational fisheries, tourism, agriculture, and many other ocean-related industries.

The impact of global climate change is nowhere more apparent than in our oceans. Icecaps are melting and coral reefs are dying. Approximately one-third of the carbon dioxide released by the burning of fossil fuels ends up in the oceans, altering ocean surface carbon chemistry. Acidic conditions can impede shell formation in important marine shellfish species, and are harmful to many organisms, from corals to shellfish to plankton, that are essential to the food chain for many larger fish and marine mammals.

Research by scientists at St. Joseph's College in Standish, Maine, has revealed that ocean acidification due to climate change may substantially increase the mortality of young clams, threatening a $16 million industry and the livelihoods of 1,800 commercial clam diggers in Maine alone.

□ 1300

Three decades ago, when acid deposition threatened Maine's lakes, we documented the harm and devised a legislative response through monitoring and research. My legislation will provide similar tools to respond to ocean acidification. To protect future generations, we must understand the consequences that ocean acidification could have on our natural resources and coastal economies so that we can mitigate and adapt to those consequences.

The Federal Ocean Acidification Research and Monitoring Act will direct and fund key research to examine the effects that climate change is having on our oceans and on our fisheries. I urge my colleagues to support this measure.

Mr. FEENEY. Mr. Speaker, I am proud to yield 5 minutes to my friend the gentleman from South Carolina (Mr. INGLIS).

Mr. INGLIS of South Carolina. I thank the gentleman for yielding.

Mr. Speaker, I'm not a scientist, but I play one occasionally at the Science Committee. And the good news is we have got some scientists at the Science Committee, great staff members and Members of Congress, like Dr. BAIRD, who is one of my tutors on this issue of ocean acidification.

Recently in a trip to the Galapagos, we had an opportunity to hear from Dr. Julian Sachs, who, along with Dr. BAIRD's tutelage, was able to explain to me finally why it is that the carbon sink of the oceans is going to create a problem for life in the oceans. And it has to do with that science experiment we did in high school with putting the egg in the vinegar, and a couple of days later, you come back and there's no shell on the egg. Well, that's the challenge. As carbon is absorbed into the ocean by higher CO_2 levels in the atmosphere entering in the ocean, driving down the pH, making the ocean more acidic, you end up with that scenario where the calcium-based shells of the organisms begin to dissolve.

The big challenge is the phytoplankton part of the food chain. That dissolves. It's a terrible thing to open up a hole at the bottom of the food chain. Not so bad if you're at the top of the food chain, but if you're at the bottom of the food chain, it's a terrible thing to open a hole, especially when a billion people around the world depend upon the ocean for sustenance.

So what all that means is this is a serious matter and something worth our spending time and effort and money on to research. So I am very happy to support this bill.

I am also very excited about an aspect of the bill that has been mentioned by several speakers already. That is the international cooperation that's called for in the bill. On another trip with Dr. BAIRD to Antarctica and then Australia, we saw a wonderful example of this with the NOAA's Coral Reef Watch Project, where we actually have NOAA employing two Australians who are doing work for NOAA in Australia, coordinating with the Great

Barrier Reef folks. And the result is America is there lending a hand and cooperating, improving not only the science that we generate but also my other committee, Foreign Affairs, better foreign policy outcomes; that we are showing ourselves to be a friend to the Australians, trying to preserve the Great Barrier Reef, which is obviously very important to people on the eastern shore of Australia.

So the international aspects of this may be reason enough to support the bill. But for all of the above reasons, I am very happy to support the bill and urge my colleagues to support it, and hopefully we will have this cooperation, find some breakthroughs in the science, and then figure out ways to apply those solutions to begin solving the problem.

Mr. BAIRD. Mr. Speaker, I want to thank the gentleman from South Carolina for his input and involvement and for his genuine interest in this. It has been a privilege to travel with him, and we actually had the opportunity to meet with some of the world's leading scientists on this, and I know Mr. INGLIS has maintained that dialogue ever since those journeys, and those scientists send their regards. I met with them just 2 days ago, in fact.

Mr. Speaker, I want to now acknowledge a dear friend from Washington who has been a leader not only in the Congress but in the world on the issue of renewable energy and climate change. This issue of acidification took particular relevance off our own Pacific Northwest coast about 2 months ago when NOAA published studies suggesting that the rate of acidification is much more rapid and much closer to our shores than they had ever anticipated, and it is deeply concerning. JAY INSLEE has been a champion of responsible energy policies.

Mr. Speaker, I yield 2 minutes to the gentleman from Washington (Mr. INSLEE).

(Mr. INSLEE asked and was given permission to revise and extend his remarks.)

Mr. INSLEE. Mr. Speaker, ocean acidification is both the most disturbing and potentially the most unifying issue involving carbon dioxide and climate change. It is the most disturbing because nothing that I have heard in the last couple of years about this phenomenon disproves the point of that old saying from the 1960s that was in an old commercial ''It's not nice to fool with Mother Nature.'' And we have found that when we put one-third of all the carbon dioxide coming out of our tailpipes and our coal plants, that that has made the oceans, just since the industrial revolution, 30 percent more acidic, and all the time the world has been around, it is 30 percent more acidic just during the time we've been burning coal and oil.

The results of that are not hypothetical. We had testimony in Seattle from biologists and oceanographers a couple months ago that said they actually put a shell into water that was as acidic as it could be in the next century and a half and you could see it literally melt. You are looking at literally melting of any living stuff in the oceans that form a calcium carbonate material, including the phytoplankton that is 40 percent of the bottom of the food chain, in the next century or two if we don't change course. That's why it's disturbing.

But here is why it's unifying: It's unifying because while we have had some debates about the climatic effects about global warming and CO_2, there is no debate about ocean acidification. We could spent the next century arguing about the precise climatic effects of CO_2, but there is no debate that we are making the oceans unfit for life that God himself or herself designed on the planet Earth. And that is what we are doing. And I am hopeful that that can be a unifying idea in this Congress so that we can start to develop a clean energy future for the country and the world that can preserve the oceans for living species that we depend on as well as the rest of the world.

So it is disturbing now. Hopefully, it will be unifying when we get together and really do an Apollo new energy project and save the oceans for what they were designed for, which is life on this planet.

Mr. FEENEY. I want to thank the gentleman from Washington and the others that worked on this bill.

Our oceans are the property of all humanity, and we want to do everything we can to understand them and preserve them.

With that I would urge the passage of this bill.

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

Mr. BAIRD. I thank the gentleman from Florida for his support. I also want to acknowledge the leadership of Mr. LAMPSON from Texas and Mr. HALL and their support of this as well.

Let me close with this, and it takes off from something that Mr. INSLEE said a moment ago. We can debate the temperature changes. I think the evidence is compelling from the IPCC report. But ocean acidification is something you can demonstrate in a lab. You can introduce CO_2 into the air, above water. The water will take up the CO_2. That will make the water more acidic. The more acidic water will reduce the availability of calcium carbonate and other minerals. And then, as Mr. INSLEE described, and as laboratory scientists are doing throughout the world in Australia and Israel and Jordan and off our own Florida coast, you can take these organisms, put them in this more acidic water, and you will see their growth be retarded. You will see their mortality rates increase. And, importantly, when you combine higher acidification levels with increased temperature, the mortality grows dramatically up. We are effectively killing the oceans and then possibly killing ourselves.

I am speaking on behalf of two little boys, William and Walter, my own sons, whom some of you know. They stop by here from time to time. They're 3½. I would like them to enjoy the oceans the way we have. I would like them to see the magnificent species that we now enjoy. I do not want to bequeath to those young boys or to anyone's children or grandchildren a world bereft of the coral reefs and the many species they depend on.

So with that I urge passage of this legislation and would urge that we vigorously endeavor to reduce the factors that are contributing to this dangerous problem. I urge a ''yes'' vote.

Mr. FARR. Mr. Speaker, I rise in support of H.R. 4174, the Federal Ocean Acidification Research and Monitoring Act of 2007 authored by my friend and fellow co-chair of the House Oceans Caucus Representative ALLEN.

Since the industrial revolution, the human species has begun a dangerous experiment with our planet. Humans have become, according to Alan Weisman, a volcano that has been erupting continuously for 150 years. We have taken tons of carbon from the earth and put it up in the atmosphere. It is now clear that the increase in atmospheric CO_2 is causing drastic and rapid changes in ocean chemistry.

The ocean has no choice but to absorb the increase in CO_2, in fact, the ocean will continue to absorb CO_2 long after we reduce our output. Recent research from a study led by Dr. Feeley, a NOAA scientist, has found that ocean waters from the 1950s were much more acidic than expected. We do not know the outcome of our global experiment, but we know that it will change the chemistry of the ocean.

Many fisheries off of our coasts are already collapsing. We do not know how this increase in acidity will affect these collapsing populations or the fisheries that are currently healthy. An increase in ocean acidity will dissolve the shell of the endangered black abalone of the California coast. We know that corals, already under stress from the increased ocean temperature will have their skeleton dissolved by a more acidic ocean.

We must have more research to discover how this unprecedented change will affect shellfish, corals, and the food chain that fish, and mammals, including humans, that depend on the ocean. We must create collaboration between the federal agencies who manage and study the ocean to address this problem. This bill will provide funding for research and collaboration between researcH and management agencies necessary to address this serious problem.

Mr. Speaker, I cannot emphasize enough the need to show our ocean stewardship now, so we can turn the tide on the dire consequences facing our oceans and Great Lakes. The oceans and the Great Lakes belong to all the people of the United States and it is our duty to understand the implications of our actions on them. I strongly support the Federal Ocean Acidification Research and Monitoring Act and I urge my colleagues to help understand and protect our shared ocean.

Ms. BORDALLO. Mr. Speaker, I rise in support of H.R. 4174, the Federal Ocean Acidification Research and Monitoring Act. I commend our colleagues on the Science Committee for bringing forward this important legislation to enhance our understanding of this

phenomena, which is changing the very chemistry of the world's oceans.

Ocean acidification, which is caused by increased atmospheric carbon dioxide, can negatively affect a range of organisms, from corals, to shellfish and plankton. These organisms and their habitats form the base of the food chain for many marine fish and mammal species. If not mitigated, ocean acidification could, therefore, have a cascading negative effect on important commercial fisheries, tourism and recreation, and other ocean-related industries.

The damage that ocean acidification could cause to our coastal economic and cultural livelihoods is alarming. Those who rely on oceanic resources for their food or their livelihood, as many of my constituents on Guam do, are already contending with the negative after-affects caused by coastal habitat degradation; overfishing; illegal, unregulated, and unreported fishing; and the worldwide decline of healthy coral reefs. We need to learn now everything we can about the dynamics, extent and implications of ocean acidification if we hope to be able to develop successful strategies to cope with this global threat.

I strongly support this legislation that would establish a comprehensive, interagency committee to coordinate and expand federal research on ocean acidification and marine ecosystems.

Mr. Speaker, I commend our colleague from Maine, Mr. ALLEN, for introducing this legislation and for his leadership on ocean issues. I also commend the gentleman from Texas, Mr. LAMPSON, the Chairman of the Subcommittee on Energy and Environment, and the Ranking Member, Mr. INGLIS, for advancing H.R. 41–74 through the Committee on Science and Technology. I thank them and Chairman GORDON for working with Chairman RAHALL of the Committee on Natural Resources to address matters of mutual interest and shared jurisdiction with regard to the bill. I urge my colleagues to support passage of H.R. 4174.

Mr. BAIRD. Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Washington (Mr. BAIRD) that the House suspend the rules and pass the bill, H.R. 4174, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

COMMUNITY BUILDING CODE ADMINISTRATION GRANT ACT OF 2008

Mr. MOORE of Kansas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 4461) to promote and enhance the operation of local building code enforcement administration across the country by establishing a competitive Federal matching grant program, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 4461

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 ''Community Building Code Administration Grant Act of 2008''.

SEC. 2. GRANT PROGRAM AUTHORIZED.

(a) GRANT AUTHORIZATION.—The Secretary of Housing and Urban Development shall provide grants to local building code enforcement departments.

(b) COMPETITIVE AWARDS.—The Secretary shall award grants under subsection (a) on a competitive basis pursuant to the criteria set forth in section 6, but also taking into consideration the following:

(1) The financial need of each building code enforcement department.

(2) The benefit to the local jurisdiction of having an adequately funded building code enforcement department.

(3) The demonstrated ability of each building code enforcement department to work cooperatively with other local code enforcement offices, health departments, and local prosecutorial agencies.

(c) MAXIMUM AMOUNT.—The maximum amount of any grant awarded under this section shall not exceed $1,000,000.

SEC. 3. REQUIRED ELEMENTS IN GRANT PROPOSALS.

In order to be eligible for a grant under section 2, a local building code enforcement department shall submit to the Secretary the following:

(1) A demonstration of the jurisdiction's needs in executing building code enforcement administration.

(2) A plan for the use of any funds received under this Act that addresses the needs discussed in paragraph (1) and that is consistent with the authorized uses established in section 4.

(3) A plan for local governmental actions to be taken to establish and sustain local building code enforcement administration functions, without continuing Federal support, at a level at least equivalent to that proposed in the grant application.

(4) A plan to create and maintain a program of public outreach that includes a regularly updated and readily accessible means of public communication, interaction, and reporting regarding the services and work of the local building code enforcement department to be supported by the grant.

(5) A plan for ensuring the timely and effective administrative enforcement of building safety and fire prevention violations.

SEC. 4. USE OF FUNDS; MATCHING FUNDS.

(a) AUTHORIZED USES.—Grants awarded under section 2 may be used by the grant recipient to supplement existing State or local funding for building code enforcement administration. Such funds may be used to increase staffing, provide staff training, increase staff competence and professional qualifications, support individual certification or departmental accreditation, or for capital expenditures specifically dedicated to the administration of the local building code enforcement department.

(b) ADDITIONAL REQUIREMENT.—Each local building code enforcement department receiving a grant under section 2 shall empanel a code administration and enforcement team consisting of at least 1 full-time building code enforcement officer, a city planner, and a health planner or similar officer.

(c) MATCHING FUNDS REQUIRED.—

(1) IN GENERAL.—To be eligible to receive a grant under this Act, a local building code enforcement department serving an area with a population of—

(A) over 50,000 shall provide matching, non-Federal funds in an amount equal to not less than 50 percent of the total amount of any grant to be awarded under this Act;

(B) between 20,001 and 50,000 shall provide matching, non-Federal funds in an amount equal to not less than 25 percent of the total amount of any grant to be awarded under this Act; or

(C) under 20,000 shall provide matching, non-Federal funds in an amount equal to not less than 12.5 percent of the total amount of any grant to be awarded under this Act.

(2) ECONOMIC DISTRESS.—

(A) IN GENERAL.—The Secretary may waive the matching fund requirements under paragraph (1), and institute, by regulation, new matching fund requirements based upon the level of economic distress of the local jurisdiction in which the local building code enforcement department seeking such grant is located.

(B) CONTENT OF REGULATIONS.—Any regulations instituted under subparagraph (A) shall include—

(i) a method that allows for a comparison of the degree of economic distress among the local jurisdiction's of grant applicants, as measured by the differences in the extent of growth lag, the extent of poverty, and the adjusted age of housing in such jurisdiction; and

(ii) any other factor determined to be relevant by the Secretary in assessing the comparative degree of economic distress among such local jurisdictions.

(d) IN-KIND CONTRIBUTIONS.—In determining the non-Federal share required to be provided under subsection (c), the Secretary shall consider in-kind contributions, not to exceed 50 percent of the amount that the department contributes in non-Federal funds.

(e) WAIVER OF MATCHING REQUIREMENT.—The Secretary shall waive the matching fund requirements under subsection (c) for any recipient jurisdiction that has legislatively dedicated all building code permitting fees to the conduct of local building code enforcement.

SEC. 5. RATING AND RANKING OF APPLICATIONS.

Eligible applications will be rated and ranked according to the criteria described in section 6. All complete applications will be compared to one another and points assigned on a continuum within each criteria with the maximum points awarded to the application that best meets the criteria.

SEC. 6. CRITERIA.

(a) NEED AND COMMUNITY BENEFIT FROM CODE ENFORCEMENT GRANT FUNDS.—The degree to which the application demonstrates the intent and means to ensure cooperative and effective working relationships between local building code enforcement officials and other local agencies, as well as a community-oriented approach to building code enforcement.