

is, fiscal years 2006 through 2009, the bill authorizes \$20 million per year, for a total \$93.3 million over the 5-year cycle of the legislation.

This bill is right for industry, Mr. Speaker; it is good for our energy security, and it is good for the environment.

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

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

Mr. Speaker, I want to commend the gentlewoman from Pennsylvania (Ms. HART) for her work on H.R. 3890, a bill to reauthorize the steel and aluminum research and development program at the Department of Energy. This energy conservation program is part of the Industries of the Future program in DOE's Office of Industrial Technologies. It is carried out through cost-shared partnerships with industry.

Past research under this program has made such steel mills and aluminum production facilities less polluting, more efficient and more productive.

The budgets for such programs have been cut significantly during the past 3 years, Mr. Speaker. This sends the wrong message to American workers, who are relying on these industries to remain competitive in a global market.

By reauthorizing the metals R&D program at H.R. 3890's authorization funding levels, we can give appropriate support for this research program. Restoring this funding will benefit the domestic steel and aluminum industries, the manufacturers who use American steel and aluminum in their products, and, ultimately, the American consumer.

Mr. Speaker, I recommend support for the bill by my colleagues.

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

Ms. HART. Mr. Speaker, I yield 3 minutes to the gentleman from Pennsylvania (Mr. MURPHY).

Mr. MURPHY. Mr. Speaker, I thank my colleague, the gentlewoman from Pennsylvania, for her work on this bill.

Mr. Speaker, I rise to support the reauthorization of this very worthy program. As we all know, the last few years have been difficult for America's steel industry and continuing the Metals Initiative will go a long way towards easing those burdens.

This Nation's steel industry is second to none, and it is this Congress' responsibility to do everything in its power to enable American-produced steel to compete in a global economy.

The Metals Initiative lends private industry the resources it needs to develop energy-saving technologies that increase productivity and cut pollution. These innovations are a vital component to a strong American steel industry.

I can think of few other programs that offer so much with a prudent investment. Not only does this program create jobs by making the steel industry more competitive and reduce environmental impacts caused by steel pro-

duction, but any costs incurred are recouped. A portion of all royalties realized by these new technologies are repaid until the full Federal investment has been recovered.

At a recent hearing held by the Subcommittee on Energy of the Committee on Science, U.S. Steel cited just one example of how the company has utilized these moneys. Several projects have been funded through the Metals Initiative to research and develop Advanced High Strength Steels.

This steel allows for the creation of lightweight cars that maintain the same standards of safety currently available to today's drivers. By using Metals Initiative funds, Advanced High Strength Steels production requires 171 million fewer gallons of gasoline, 4 million fewer barrels of oil, and emits 2.1 million fewer tons of carbon dioxide per year.

Such innovation reduces our dependency on both foreign steel and foreign oil, while further contributing to a safer road system and a healthier environment for us all.

This Nation would not be what it is today were it not for the contributions of the American Steel Industry and American steelworkers. Congress should recognize the significant strides the industry has taken to remain competitive despite many obstacles.

I strongly urge my colleagues to support H.R. 3890.

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

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

Mr. Speaker, this initiative is one that is not as common for government, I think, as the American people would like to see. It is designed to help industry to become more efficient in its processes, but also more efficient in its use of energy. So, in the long run, it helps preserve American jobs.

That is why we are here today, Mr. Speaker. We are working on efficiency in technology and efficiency in energy use and, obviously, better emissions.

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It is important to our industries to be competitive worldwide as we move this legislation forward.

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

The SPEAKER pro tempore (Mr. BOOZMAN). The question is on the motion offered by the gentlewoman from Pennsylvania (Ms. HART) that the House suspend the rules and pass the bill, H.R. 3890, as amended.

The question was taken; and (two-thirds having voted in favor thereof) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

#### HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AMENDMENTS ACT OF 2004

Mr. EHLERS. Mr. Speaker, I move to suspend the rules and pass the bill

(H.R. 1856) to reauthorize the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, and for other purposes, as amended.

The Clerk read as follows:

H.R. 1856

*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 "Harmful Algal Bloom and Hypoxia Research Amendments Act of 2004".

#### SEC. 2. RETENTION OF TASK FORCE.

Section 603 of the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (16 U.S.C. 1451 note) is amended by striking subsection (e).

#### SEC. 3. SCIENTIFIC ASSESSMENTS AND RESEARCH, DEMONSTRATION, AND TECHNOLOGY TRANSFER PLANS.

Such section 603 is further amended—

(1) in subsection (a) by adding at the end the following:

"In developing the assessments and plans described in subsections (b), (c), (d), (e), and (f), the Task Force shall work with appropriate State, Indian tribe, and local governments to ensure that the assessments and plans fulfill the requirements of subsections (b)(2), (c)(2), (d)(2), (e)(2), and (f)(2). Additionally, the Task Force shall consult with appropriate industry (including agriculture and fertilizer industry), academic institutions, and non-governmental organizations throughout the development of the assessments and plans."; and

(2) by striking subsections (b) and (c) and inserting the following:

"(b) SCIENTIFIC ASSESSMENTS OF HARMFUL ALGAL BLOOMS.—(1) Not less than once every 5 years the Task Force shall complete and submit to Congress a scientific assessment of harmful algal blooms in United States coastal waters. The first such assessment shall be completed not later than 24 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2004 and should consider only marine harmful algal blooms. All subsequent assessments shall examine both marine and freshwater harmful algal blooms, including those in the Great Lakes and upper reaches of estuaries.

"(2) The assessments under this subsection shall—

"(A) examine the causes and ecological consequences, and economic costs, of harmful algal blooms;

"(B) describe the potential ecological and economic costs and benefits of possible actions for preventing, controlling, and mitigating harmful algal blooms;

"(C) evaluate progress made by, and the needs of, Federal research programs on the causes, characteristics, and impacts of harmful algal blooms; and

"(D) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on harmful algal blooms.

"(c) SCIENTIFIC ASSESSMENT OF FRESHWATER HARMFUL ALGAL BLOOMS.—(1) Not later than 24 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2004 the Task Force shall complete and submit to Congress a scientific assessment of current knowledge about harmful algal blooms in freshwater locations such as the Great Lakes and upper reaches of estuaries, including a research plan for coordinating Federal efforts to better understand freshwater harmful algal blooms.

"(2) The freshwater harmful algal bloom scientific assessment shall—

“(A) examine the causes and ecological consequences, and the economic costs, of harmful algal blooms with significant effects on freshwater locations, including estimations of the frequency and occurrence of significant events;

“(B) establish priorities and guidelines for a competitive, peer-reviewed, merit-based interagency research program, as part of the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) project, to better understand the causes, characteristics, and impacts of harmful algal blooms in freshwater locations; and

“(C) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on harmful algal blooms in freshwater locations.

“(d) NATIONAL SCIENTIFIC RESEARCH, DEVELOPMENT, DEMONSTRATION, AND TECHNOLOGY TRANSFER PLAN INTO REDUCING IMPACTS FROM HARMFUL ALGAL BLOOMS.—(1) Not later than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2004, the Task Force shall develop and submit to Congress a plan providing for a comprehensive and coordinated national research program to develop and demonstrate prevention, control, and mitigation methods to reduce the impacts of harmful algal blooms on coastal ecosystems (including the Great Lakes), public health, and the economy.

“(2) The plan shall—

“(A) establish priorities and guidelines for a competitive, peer-reviewed, merit-based interagency research, development, demonstration, and technology transfer program on methods for the prevention, control, and mitigation of harmful algal blooms;

“(B) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to the actions described in paragraph (1); and

“(C) include to the maximum extent practicable diverse institutions, including Historically Black Colleges and Universities and those serving large proportions of Hispanics, Native Americans, Asian-Pacific Americans, and other underrepresented populations.

“(3) The Secretary of Commerce, in conjunction with other appropriate Federal agencies, shall establish a research, development, demonstration, and technology transfer program that meets the priorities and guidelines established under paragraph (2)(A). The Secretary shall ensure, through consultation with Sea Grant Programs, that the results and findings of the program are communicated to State, Indian tribe, and local governments, and to the general public.

“(e) SCIENTIFIC ASSESSMENTS OF HYPOXIA.—(1) Not less than once every 5 years the Task Force shall complete and submit to Congress a scientific assessment of hypoxia in United States coastal waters including the Great Lakes. The first such assessment shall be completed not less than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2004.

“(2) The assessments under this subsection shall—

“(A) examine the causes and ecological consequences, and the economic costs, of hypoxia;

“(B) describe the potential ecological and economic costs and benefits of possible actions for preventing, controlling, and mitigating hypoxia;

“(C) evaluate progress made by, and the needs of, Federal research programs on the causes, characteristics, and impacts of hypoxia, including recommendations of how to eliminate significant gaps in hypoxia modeling and monitoring data; and

“(D) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on hypoxia.

“(f) LOCAL AND REGIONAL SCIENTIFIC ASSESSMENTS.—(1) The Secretary of Commerce, in coordination with the Task Force and appropriate State, Indian tribe, and local governments, shall provide for local and regional scientific assessments of hypoxia or harmful algal blooms, as requested by State, Indian tribe, or local governments, or for affected areas as identified by the Secretary. If the Secretary receives multiple requests, the Secretary shall ensure, to the extent practicable, that assessments under this subsection cover geographically and ecologically diverse locations with significant ecological and economic impacts from hypoxia or harmful algal blooms. The Secretary shall establish a procedure for reviewing requests for local and regional assessments. The Secretary shall ensure, through consultation with Sea Grant Programs, that the findings of the assessments are communicated to the appropriate State, Indian tribe, and local governments, and to the general public.

“(2) The scientific assessments under this subsection shall examine—

“(A) the causes and ecological consequences, and the economic costs, of hypoxia or harmful algal blooms in that area;

“(B) potential methods to prevent, control, and mitigate hypoxia or harmful algal blooms in that area and the potential ecological and economic costs and benefits of such methods; and

“(C) other topics the Task Force considers appropriate.”.

#### SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

Section 605 of such Act is amended to read as follows:

##### “SEC. 605. AUTHORIZATION OF APPROPRIATIONS.

“There are authorized to be appropriated to the Secretary of Commerce for research, education, monitoring, demonstration, and technology transfer activities related to the prevention, reduction, and control of harmful algal blooms and hypoxia, \$19,000,000 for each of fiscal years 2005, 2006, and 2007, to remain available until expended. The Secretary shall consult with the States on a regular basis regarding the development and implementation of the activities authorized under this title. Of such amounts for each fiscal year—

“(1) \$1,500,000 for each of fiscal years 2005, 2006, and 2007 shall be used to enable the National Oceanic and Atmospheric Administration to carry out research and assessment activities, including procurement of necessary research equipment, at research laboratories of the National Ocean Service and the National Marine Fisheries Service;

“(2) \$3,000,000 for each of fiscal years 2005, 2006, and 2007 shall be used to carry out the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) project, with \$1,000,000 of such amount used to carry out research on freshwater harmful algal blooms;

“(3) \$4,000,000 for each of fiscal years 2005, 2006, and 2007 shall be used to carry out the research program described in section 603(d)(3);

“(4) \$7,000,000 for each of fiscal years 2005, 2006, and 2007 shall be used to carry out the Monitoring and Event Response for Harmful Algal Blooms (MERHAB) project;

“(5) \$2,000,000 for each of fiscal years 2005, 2006, and 2007 shall be used for activities related to research and monitoring on hypoxia; and

“(6) \$1,500,000 for each of fiscal years 2005, 2006, and 2007 shall be used to carry out the activities described in section 603(f). Amounts authorized under paragraphs (2), (3), (4), and (5) shall only be used to support

competitive, peer-reviewed research programs.”.

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

The Chair recognizes the gentleman from Michigan (Mr. EHLERS).

#### GENERAL LEAVE

Mr. EHLERS. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days within which to revise and extend their remarks and include extraneous material on H.R. 1856, as amended, the bill now under consideration.

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

There was no objection.

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

Mr. Speaker, it is timely that we are considering this bill about harmful algal blooms and hypoxia. Just last week, beaches in the Chesapeake Bay were closed due to a harmful algal bloom.

I introduced H.R. 1856 more than a year ago after learning about the nationwide problems caused by harmful algal blooms, also known as HABs, and also, the harmful effects from hypoxia. Harmful algal blooms are dense mats of toxic algae that can harm marine animals and humans. Hypoxia occurs when an algal bloom depletes oxygen in the water and leaves behind conditions that essentially choke all of the marine life in the affected area.

Harmful algal blooms and hypoxia occur nationwide in areas including the Chesapeake Bay, California, the Pacific Northwest, the Great Lakes, and the Gulf of Mexico. In 1998, Congress passed a 3-year bill authorizing harmful algal bloom and hypoxia research programs with a focus on the dead zone in the Gulf of Mexico and Pfiesteria in the Chesapeake Bay. Since the authorization of these important research programs expired, I decided to reexamine the issue at a hearing in the Committee on Science last year.

At that hearing we learned that successful research supported by the 1998 authorization enabled scientists to move closer to being able to predict HAB outbreaks; and in some regions, they have learned enough about the phenomena to start developing mitigation and control methods. We also learned that the occurrence of harmful algal blooms and hypoxia is increasing in fresh-water locations such as the Great Lakes, and there is sometimes a disconnect between the research being performed and the local resource managers who should benefit from the science. In response, I developed H.R. 1856 to amend and update the 1998 act. Today, I offer a manager's amendment that reflects discussions with the Committee on Resources and the Committee on Transportation and Infrastructure who are also interested in this bill. I especially want to thank the

gentleman from Tennessee (Mr. DUNCAN) from the Committee on Transportation and Infrastructure, the chair of the Subcommittee on Water Resources, as well as the gentleman from Maryland (Mr. GILCHREST) from the Committee on Resources, chair of the Fisheries Subcommittee, for their help in guiding this bill through the process. Also I thank my colleagues on the Committee on Science, including the gentleman from New York (Chairman BOEHLERT) and my friend, the gentleman from Washington (Mr. BAIRD), who have provided useful input. I appreciate all of their help in improving the bill.

The manager's amendment maintains the current level of authorization for harmful algal blooms and hypoxia programs at the National Oceanic and Atmospheric Administration, better known as NOAA, and maintains that current level of authorization at \$19 million annually over the next 3 fiscal years. It adds fresh-water regions such as the Great Lakes as an important focus area for harmful algal bloom and hypoxia research.

The bill also increases participation of local resource managers to ensure that the research is prioritized to address the questions facing people managing these problems. Also, the bill requires that NOAA administer all research funding through a competitive, merit-based, peer-reviewed process.

Finally, the bill reauthorizes funding for effective programs that evolved out of the 1998 act. For example, the MERHAB program, which stands for Monitoring and Event Response For Harmful Algal Blooms, partners State and local research managers with university researchers. Research from this program has resulted in innovations such as rapid test kits that beach managers can use directly in the field to test for harmful algal blooms. These kits eliminated the need to take samples back to a lab and wait days for confirmation of the presence of toxins, providing an early warning for the public about harmful algal blooms.

H.R. 1856 does not mandate any specific regulatory actions. It is purely a research, development, and demonstration bill, with a goal of improving our understanding of these phenomena so that we can predict their occurrence and develop tools for improved detection and mitigation of these problems.

Mr. Speaker, I urge my colleagues to support the manager's amendment and the underlying bill.

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

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

Mr. Speaker, I am pleased to offer my support for H.R. 1856, the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2004, authored by my colleague and friend, the gentleman from Michigan (Mr. EHLERS). I thank my colleague on the Committee on Science and my colleague on the Committee on Transportation and In-

frastructure, the gentleman from Tennessee (Mr. DUNCAN), for working with me to develop language that will move the research results of this program from the laboratory and the field closer to their application. I would also like to thank the members of the Committee on Science for their support and help in this effort.

Since the inception of this program in 1998, we have developed a better understanding and appreciation for the dimensions and complexity of harmful algal blooms and hypoxic zones. We have made progress in identifying harmful species and in providing timely information to fisheries and recreational managers to prevent human health problems. However, we have not been very successful in developing and implementing management strategies or technologies to reduce the frequency or the intensity of the blooms.

Harmful algal blooms are not just an unpleasant nuisance. They are hazardous to human health, damaging to fish and wildlife, and they are economically devastating to the coastal communities that depend on coastal resources for their livelihoods. The razor clam fisheries, for example, along the coast of Washington have experienced three extended closures in the past 10 years. Each one of these represents the loss of over \$10 million to coastal communities in my home State. I can tell my colleagues that local restaurants, hotels, and the tourism industry depend on the annual influx of clam diggers; and when the beaches are closed, they lose millions of dollars in important revenue and jobs.

Also, Washington State's Hood Canal region of the Puget Sound has experienced harmful algal blooms that threaten to create an ecological dead zone. Due to the proliferation of harmful blooms, levels of dissolved oxygen in Hood Canal have declined during the past several years to such an extent that many fish, shellfish, and invertebrate species are threatened. Indeed, last fall, two dozen species of fish washed up on Hood Canal's beaches, unable to survive in the oxygen-depleted waters. In an effort to protect Hood Canal's increasingly threatened ecosystem, the Washington Department of Fish and Wildlife has been forced to close much of the canal to fishing, costing rural Washington communities valuable jobs. Oxygen levels drop during the summer, and State officials expect significant losses as this summer continues.

Our States need funding to implement plans to identify and eradicate the causes and to prevent such blooms. We must act now to clean our coastal waters and restore the ecological and economic health of our fisheries. I urge all of my colleagues to support H.R. 1856. And again, I commend the gentleman from Michigan (Chairman EHLERS) for his leadership on this issue.

Mr. Speaker, we have no other speakers, and I yield back the balance of my time.

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

Mr. Speaker, I would like to say a few words for the Members who may not understand what harmful algal blooms are, and I also want to emphasize that this bill does not increase authorization or funding above the previous bill; it maintains the same level at \$19 million per year, and we believe that will be sufficient to continue the project.

Harmful algal blooms are sometimes referred to as a "red tide." These are algae that for some reason proliferate very rapidly under certain conditions, and the net effect of that is that they consume so much oxygen and produce toxins that they basically create a dead zone. In the Gulf of Mexico, it is not unusual to have a dead zone equal in size to the State of New Jersey. Obviously, this is not only harmful to the Gulf of Mexico, but also harmful to the fishing industries who like to use that area because of the large number of fish that are killed by the lack of oxygen and the toxins.

What is of special concern is that the harmful algal blooms now are appearing in fresh-water areas, particularly the Great Lakes, one of the greatest sources of fresh water not only in this Nation, but in the world.

We want to head that off very early, and try to find out precisely what is happening in the Great Lakes that would allow these harmful algal blooms to develop there and create the same difficulties that we have observed in the Gulf of Mexico, as well as in the State of Washington in the bay area around Seattle and Puget Sound.

Mr. Speaker, I think it is absolutely essential for us to address this. We reached the conclusion after our hearing that a great deal of good research has been done, that the emphasis now can switch from research, although not entirely; we must continue some research, but we also have to convert that into action now. The gentleman from Washington (Mr. BAIRD) in particular has a problem in the Puget Sound area that has to be addressed immediately. We hope that, as a result of this bill, we will see greater action through demonstration projects, and more than demonstration projects as time goes on, so that we can deal with this problem, actually solve it, and get rid of the harmful algal blooms and the hypoxia which occurs and which kills other organisms.

So, Mr. Speaker, I am pleased that this bill has reached this point. I want to thank the gentleman from Washington. He is one of the most helpful committee members on the Committee on Science, but particularly on this bill because of his expertise and the situation they have in the State of Washington. He has been most helpful in our discussions; and I hope that, as a result of this action, we will be able to address the problems in the State of Washington as well as other areas of the Nation.

Mr. Speaker, I want to also express my thanks to the gentleman from Tennessee (Mr. DUNCAN) and the gentleman from Maryland (Mr. GILCREST) for their work on moving this bill through the Committee on Transportation and Infrastructure, as well as the Committee on Resources. Finally, I thank the gentleman from New York (Chairman BOEHLERT) for his hard work bringing this bill to the floor today.

Mr. Speaker, H.R. 1856 will provide a timely update for these important programs that help our coastal communities deal with harmful algal blooms and hypoxia. I urge all of our colleagues to support H.R. 1856.

Mr. EMANUEL. Mr. Speaker, as someone concerned with the health of the Great Lakes, I rise in support of H.R. 1856, the Harmful Algal Bloom and Hypoxia Research Amendments Act.

I would also like to thank my distinguished colleague from Michigan for offering this bill as well as for his leadership on this and other issues of importance to the Great Lakes.

As has been noted, harmful algal blooms are dense patches of toxic algae, which can poison marine life.

Harmful algal blooms can also become airborne and cause respiratory problems in humans.

Worse still, when the toxic algae decays, it can cause hypoxia, or a condition where all the oxygen in the water surrounding the algal bloom is consumed, resulting in a "dead zone" where no living thing can survive.

These algal blooms plague the Gulf of Mexico, the Chesapeake Bay and many of the Great Lakes, notably Lake Erie.

In fact, a recent report estimates that more than half of the Nation's estuaries experience hypoxic conditions at some time each year.

Economic impact of harmful algal blooms in United States average annually \$50 million, but individual outbreaks can cause economic damage that far exceed the annual average.

Total public health impacts due to shellfish poisoning from harmful algal blooms averaged \$22 million between 1987–1992.

H.R. 1856 will help us to better understand harmful algal blooms by increasing and updating research programs at NOAA.

But, importantly, H.R. 1856 will begin new research into Great Lakes algal blooms, which present different challenges and concerns than their ocean relatives.

Indeed, this bill will do a lot to help us better understand just one of the many problems facing the Great Lakes, and ultimately help us to begin to restore the health of one of our greatest national treasures.

This bill is a good first step, and I hope it will renew this body's interest in providing resources to conserve our nation's lakes and oceans, including the Great Lakes.

For this reason I support H.R. 1856, and urge my colleagues to do so as well.

Mr. EHLERS. Mr. Speaker, I have no further requests for time, and I yield back the remainder of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Michigan (Mr. EHLERS) that the House suspend the rules and pass the bill, H.R. 1856, as amended.

The question was taken; and (two-thirds having voted in favor thereof)

the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

### SUPPORTING THE GOALS AND IDEALS OF THE WORLD YEAR OF PHYSICS

Mr. EHLERS. Mr. Speaker, I move to suspend the rules and agree to the concurrent resolution (H. Con. Res. 301) supporting the goals and ideals of the World Year of Physics.

The Clerk read as follows:

H. CON. RES. 301

Whereas throughout history physics has contributed to knowledge, civilization, and culture around the world;

Whereas physics research has been and continues to be a driving force for scientific, technological, and economic development;

Whereas many emerging fields in science and technology, such as nanoscience, information technology, and biotechnology, are substantially based on and derive many of their tools from fundamental discoveries in physics and applications thereof;

Whereas physics will continue to play a vital role in addressing many 21st-century challenges related to sustainable development, including environmental conservation, clean sources of energy, public health, and security;

Whereas Albert Einstein is a widely recognized scientific figure who contributed enormously to the development of physics, beginning in 1905 with his groundbreaking papers on the photoelectric effect, the size of molecules, Brownian motion, and the theory of relativity that led to his most famous equation,  $E = mc^2$ ;

Whereas 2005 will be the 100th anniversary of those important scientific achievements; and

Whereas the General Assembly of the International Union of Pure and Applied Physics unanimously approved the proposition designating 2005 as the World Year of Physics: Now, therefore, be it

*Resolved by the House of Representatives (the Senate concurring), That the Congress—*

(1) supports the goals and ideals of the World Year of Physics, as designated by the General Assembly of the International Union of Pure and Applied Physics;

(2) encourages the American people to observe the World Year of Physics as a special occasion for giving impetus to education and research in physics as well as to the public's understanding of physics;

(3) encourages all science-related government agencies and nongovernmental organizations, the private sector, and the media to highlight and give enhanced recognition to the role of physics in social, cultural, and economic development as well as its positive impact and contributions to society; and

(4) encourages all those involved in physics education and research to take additional steps, including strengthening existing and emerging fields of physics research and promoting the public's understanding of physics, to ensure that support for physics continues and that physics studies at all levels continue to attract an adequate number of students.

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

The Chair recognizes the gentleman from Michigan (Mr. EHLERS).

### GENERAL LEAVE

Mr. EHLERS. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days within which to revise and extend their remarks and include extraneous material on H. Con. Res. 301, the resolution now under consideration.

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

There was no objection.

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

Mr. Speaker, I am pleased that we are considering this resolution recognizing the importance of physics to our everyday lives. This resolution supports the goals and ideals of the World Year of Physics and at the same time celebrates the 100th anniversary of Einstein's development of the theory of relativity. I am certain we are all familiar with the equation  $E=mc^2$  which, for the first time, recognized that mass is a form of energy and in fact could be converted into energy. This was a key factor in discovering nuclear fission and nuclear fusion.

The resolution recognizes the important contributions of physicists to technological progress and the health of many industries. I could go on and on listing all the various benefits that we have developed in today's world resulting from the work of physicists. Many people do not realize, for example, that some of the most important developments in health care come directly from the world of physics. As an example, x-rays were discovered by a physicist. The CAT scan was developed based on work that physicists had done. And MRI imaging, which is very useful for health diagnosis and research, was developed by physicists resulting from work done on nuclear magnetic resonance, which was discovered while I was still a graduate student.

In addition, what has developed with lasers is a very important aspect of what was at first a small, unknown field of research, very related to the field of research in which I received my doctorate. Discovery of lasers was the first proof of something that had been developed years ago theoretically, that photons passing through a material in an excited state would result in the emission of additional photons precisely in phase and at the same frequency as the photon that initiated the emission. That was the heart of developing the laser.

The ramifications and uses of the laser are so numerous that I can scarcely begin to mention them. They are used in surgery. They are used in factories to cut steel and to cut out patterns for clothes. In many, many other areas lasers play an extremely important role.

As I said, I could go on and on talking about the contributions that physicists have made to technological