

by Presidential Proclamation Numbered 5030, dated March 10, 1983, including the ocean waters of the areas referred to as "eastern special areas" in article 3(1) of the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990.

(4) MARPOL; ANNEX V; CONVENTION.—The terms "MARPOL", "Annex 5", and "Convention" have the meaning given those terms in paragraphs (3) and (4) of section 2(a) of the Act to Prevent Pollution from Ships (33 U.S.C. 1901(a)).

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated for each fiscal year 2006 through 2010—

(1) to the Administrator for the purpose of carrying out sections 3 and 7 of this Act, \$10,000,000, of which no more than 10 percent may be for administrative costs; and

(2) to the Secretary of the Department in which the Coast Guard is operating, for the use of the Commandant of the Coast Guard in carrying out sections 4 and 6 of this Act, \$5,000,000, of which no more than 10 percent may be used for administrative costs.

Mr. INOUE. I rise today in support of S. 362, the Marine Debris Research, Prevention, and Reduction Act, legislation I introduced with Senator STEVENS, with the cosponsorship of Senators CANTWELL, SNOWE, LAUTENBERG, KERRY, SARBANES, AKAKA, and MURRAY.

This bill, which I am proud to say passed the Senate unanimously in the 108th Congress, focuses on one particular impact that goes unnoticed by many and has been largely ignored by the global community: marine debris. This problem is so important, and so pervasive, that it merited an entire chapter of the 2004 Report of the U.S. Commission on Ocean Policy.

While marine debris includes conventional "trash," it also includes a vast array of additional materials that may find their way to sea, such as discarded or lost fishing gear, cargo washed overboard, and abandoned equipment from our commercial fleets. Marine debris is not only unsightly and dangerous to navigation, but it is also deadly to sea creatures, which may die entangled in a discarded fishing net or after ingesting plastic items such as lighters and toys.

While the problem is vast, it is also reversible when given sufficient emphasis, coordination, and funding. The bill being considered by the full Senate today aims to meet this challenge by adopting the measures recommended by both the Ocean Commission and the 2000 International Marine Debris Conference to help remove manmade marine debris from the list of ocean threats. The bill has strong support from the Bush administration, environmental groups, and others with an interest in the marine debris problem, including the Ocean Conservancy and the Northwest Straits Commission.

Specifically, our legislation would establish a Marine Debris Prevention and Removal Program within the National Oceanic and Atmospheric Administration, NOAA, direct the U.S. Coast Guard to improve enforcement of laws designed to prevent ship-based pollu-

tion from plastics and other garbage, reinvigorate an interagency committee on marine debris, and improve our research and information on marine debris sources, threats, and prevention. The bill would authorize \$10 million in funding for the NOAA program, and \$5 million in funding for the Coast Guard program. I am pleased to say that congressional action last year provided \$5 million in appropriated funding to NOAA specifically toward this problem, and the Senate Appropriations Committee has recommended increasing this amount to \$6.4 million in fiscal year 2006. We challenge the administration to likewise increase funding for this initiative in coming years.

In Hawaii, the impacts of marine debris are more visible because of the convergence caused by the North Pacific Tropical High. Atmospheric forces cause ocean surface currents to converge on Hawaii, bringing with them the vast amount of debris floating throughout the Pacific. Since 1996, a total of 484 tons of debris have been removed from coral reefs in the northwestern Hawaiian Islands, which is also home to many endangered marine species. In 2004 alone, the program removed over 125 tons of debris. However, because more debris arrives daily, the job is far from done.

I am pleased that the coordinated approach taken to address the threats posed by marine debris in the northwestern Hawaiian Islands has provided a model for the nation. We have learned that our best path to success lies in partnering with one another to share resources, and it is my hope that others may adapt our project to their own shores through the partnership and funding opportunities set forth in this bill.

We must also bear in mind that no matter how zealously we reform our practices, the ultimate solution lies in international cooperation. The oceans connect the coastal nations of the world, and we must work together to reduce this increasing threat to our seas and shores. The Marine Debris Research, Prevention, and Reduction Act will provide the United States with the tools to develop effective marine debris prevention and removal programs on a worldwide basis, including reporting and information requirements that will assist in the creation of an international marine debris database.

Mr. President, I encourage my colleagues to join me in supporting enactment of the Marine Debris Research, Prevention, and Reduction Act. This bill will provide the United States with the programs and resources necessary to protect our most valuable resources, our oceans.

The committee amendment was agreed to.

The amendment (No. 1099) was agreed to, as follows:

(The amendment is printed in today's RECORD under "Text of Amendments.")

The bill (S. 362), as amended, was read the third time, and passed.

NATIONAL OCEAN EXPLORATION PROGRAM ACT

The Senate proceeded to consider the bill (S. 39) to establish a coordinated national ocean exploration program within the National Oceanic and Atmospheric Administration.

AMENDMENT NO. 1100

(Purpose: In the nature of a substitute)

The amendment (No. 1100) was agreed to.

(The amendment is printed in today's RECORD under "Text of Amendments.")

The bill (S. 39), as amended, was read the third time, and passed.

Mr. INOUE. I rise today in support of S. 39, the National Ocean Exploration Program Act. As a cosponsor of S. 39, I join my good friend Chairman, STEVENS in supporting an enhanced national effort to explore our oceans, as was strongly recommended by the U.S. Commission on Ocean Policy. The oceans cover nearly three-quarters of the Earth's surface and contain a diversity of life which greatly exceeds that found in terrestrial systems, and yet our oceans remain poorly understood. I therefore commend my friend, Chairman STEVENS, for his initiative in this area and thank Senators SNOWE, DODD, KERRY, LAUTENBERG, CANTWELL, and REED for their support in cosponsoring this legislation.

Despite the importance of the oceans in human history, in regulating climate change, guaranteeing food security, providing energy resources, and enabling worldwide commerce, the U.S. spends only 3.5 percent of its research budget on ocean science, and far less on ocean exploration. Approximately 95 percent of the ocean floor remains unexplored. It is hard to understand our inattention to this exciting area of research given the opportunity ocean exploration provides for discovering new habitats, species, artifacts, and resources. Ocean exploration expeditions can provide images of ancient human artifacts, rare or previously undiscovered species, and exciting new ecosystems. These images ignite the imagination of the general public and engage them in marine science and conservation.

This bill is a reflection of Senator STEVENS' and my long history of working together to increase the funding for ocean exploration, as well as to secure a dedicated vessel to conduct these activities in U.S. waters and worldwide. To accomplish these goals our bill would establish a national ocean exploration program within the National Oceanic and Atmospheric Administration that, in coordination with the National Science Foundation, would conduct interdisciplinary ocean exploration voyages and give priority attention to deep ocean regions.

To facilitate the aims of the exploration program, the bill would also establish a Federal exploration technology and infrastructure task force. This task force would be charged with strengthening interagency coordination for the purposes of developing and

facilitating the transfer of new exploration technologies, communication infrastructure and data management systems to the exploration program. Long-term funding levels are also dedicated for ocean exploration in the bill.

I hope that my colleagues will work with us today to ensure the swift passage of the National Ocean Exploration Program Act.

TSUNAMI PREPAREDNESS ACT

The Senate proceeded to consider the bill (S. 50) to authorize and strengthen the National Oceanic and Atmospheric Administration's tsunami detection, forecast, warning, and mitigation program, and for other purposes, which had been reported from the Committee on Commerce, Science, and Transportation, with an amendment.

(Strike the part shown in black brackets and insert the part shown in italic.)

S. 50

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 "Tsunami Preparedness Act".]

[SEC. 2. FINDINGS AND PURPOSES.

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

[(1) Tsunami are a series of large waves of long wavelength created by the displacement of water by violent undersea disturbances such as earthquakes, volcanic eruptions, landslides, explosions, and the impact of cosmic bodies.

[(2) Tsunami have caused, and can cause in the future, enormous loss of human life, injury, destruction of property, and economic and social disruption in coastal and island communities.

[(3) While 85 percent of tsunami occur in the Pacific Ocean, and coastal and island communities in this region are the most vulnerable to the destructive results, tsunami can occur at any point in any ocean or related body of water where there are earthquakes, volcanoes, or any other activity that displaces a large volume of water.

[(4) A number of States and territories are subject to the threat of tsunamis, including Alaska, California, Hawaii, Oregon, Washington, American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, and the U.S. Virgin Islands.

[(5) The National Oceanic and Atmospheric Administration is responsible for maintaining a tsunami detection and warning system for the Nation, issuing warnings to United States communities at risk from tsunami, and preparing those communities to respond appropriately, through—

[(A) the Pacific Tsunami Warning Center in Ewa Beach, Hawaii, which serves as a warning center for Hawaii, all other United States assets in the Pacific, and Puerto Rico;

[(B) the Alaska/West Coast Tsunami Warning Center in Palmer, Alaska, which is responsible for issuing warnings for Alaska, British Columbia, California, Oregon, and Washington;

[(C) the Federal-State national tsunami hazard mitigation program;

[(D) a tsunami research and assessment program, including programs conducted by the Pacific Marine Environmental Laboratory;

[(E) the TsunamiReady Program, which educates and prepares communities for survival before and during a tsunami; and

[(F) other related programs.

[(6) The National Oceanic and Atmospheric Administration also represents the United States as a member of the International Coordination Group for the Tsunami Warning System in the Pacific, administered by the Intergovernmental Oceanographic Commission of UNESCO, for which the Pacific Tsunami Warning Center acts as the operational center and shares seismic and water level information with 26 member states, and maintains UNESCO's International Tsunami Information Center, in Honolulu, Hawaii, which provides technical and educational assistance to member states.

[(7) The Tsunami Warning Centers receive seismographic information from the Global Seismic Network, an international system of earthquake monitoring stations, from the United States Geological Survey National Earthquake Information Center, and from cooperative regional seismic networks, and use these data to issue tsunami warnings and integrate the information with data from their own tidal and deep ocean monitoring stations, to cancel or verify the existence of a damaging tsunami. Warnings are disseminated by the National Oceanic and Atmospheric Administration to State emergency operation centers.

[(8) Current gaps in the International Tsunami Warning System, such as the lack of regional warning systems in the Indian Ocean, the southwest Pacific Ocean, Central and South America, the Mediterranean Sea, and Caribbean, pose risks for coastal and island communities.

[(9) The tragic and extreme loss of life experienced by countries in the Indian Ocean following the magnitude 9.0 earthquake and resulting tsunami in that region on December 26, 2004, illustrates the destructive consequences which can occur in the absence of an effective tsunami warning and notification system.

[(10) An effective tsunami warning and notification system is part of a multi-hazard disaster warning and preparedness program and requires near real-time seismic, sea level, and oceanographic data, high-speed data analysis capabilities, a high-speed tsunami warning communication system, a sustained program of education and risk assessment, and an established local communications infrastructure for timely and effective dissemination of warnings to activate evacuation of tsunami hazard zones.

[(11) The Tsunami Warning System for the Pacific is a model for other regions of the world to adopt, and can be expanded and modernized to increase detection, forecast, and warning capabilities for vulnerable states and territories, reduce the incidence of costly false alarms, improve reliability of measurement and assessment technology, and increase community preparedness.

[(12) Tsunami warning and preparedness capability can be developed in other vulnerable areas of the world, such as the Indian Ocean, by identifying tsunami hazard zones, educating populations, developing alert and notification communications infrastructure, and by deploying near real-time tsunami detection sensors and gauges, establishing hazard communication and warning networks, expanding global monitoring of seismic activity, encouraging the increased exchange of seismic and tidal data between nations, and improving international coordination when a tsunami is detected.

[(13) UNESCO has recognized the need to establish tsunami warning systems for regions beyond the Pacific Basin that are vulnerable to tsunamis, including the Indian Ocean, and has convened a working group to

lead an effort to expand the International Tsunami Warning System in the Pacific to such vulnerable regions.

[(14) The international community and all vulnerable nations should take coordinated efforts to establish and participate in regional tsunami warning systems and other hazard warnings systems developed to meet the goals of the United Nations International Strategy for Disaster Reduction.

[(b) PURPOSES.—The purposes of this Act are—

[(1) to improve tsunami detection, forecast, warnings, notification, preparedness, and mitigation in order to protect life and property both in the United States and elsewhere in the world;

[(2) to improve and modernize the existing Pacific Tsunami Warning System to increase coverage, reduce false alarms and increase accuracy of forecasts and warnings, and expand detection and warning systems to include other vulnerable States and United States territories, including the Caribbean/Atlantic/Gulf region;

[(3) to increase and accelerate mapping, modeling, research, assessment, education, and outreach efforts in order to improve forecasting, preparedness, mitigation, response, and recovery of tsunami and related coastal hazards;

[(4) to provide technical and other assistance to speed international efforts to establish regional tsunami warning systems in vulnerable areas worldwide, including the Indian Ocean; and

[(5) to improve Federal, State, and international coordination for tsunami and other coastal hazard warnings and preparedness.

[SEC. 3. TSUNAMI DETECTION AND WARNING SYSTEM.

[(a) IN GENERAL.—The Administrator of the National Oceanic and Atmospheric Administration shall operate regional tsunami detection and warning systems for the Pacific Ocean region and for the Atlantic Ocean, Caribbean, and Gulf of Mexico region that will provide maximum detection capability for United States coastal tsunami.

[(b) SYSTEM REQUIREMENTS.—

[(1) PACIFIC SYSTEM.—The Pacific tsunami warning system shall cover the entire Pacific Ocean area, including the Western Pacific, the Central Pacific, the North Pacific, the South Pacific, and the East Pacific and Arctic areas.

[(2) ATLANTIC, CARIBBEAN, AND GULF OF MEXICO SYSTEM.—The Atlantic, Caribbean, and Gulf system shall cover areas of the Atlantic Ocean, Caribbean Sea, and the Gulf of Mexico that the Administrator determines—

[(A) to be geologically active, or to have significant potential for geological activity; and

[(B) to pose measurable risks of tsunamis for States along the coastal areas of the Atlantic Ocean or the Gulf of Mexico.

[(3) COMPONENTS.—The systems shall—

[(A) utilize an array of deep ocean detection buoys, including redundant and spare buoys;

[(B) include an associated tide gauge and water level system designed for long-term continuous operation tsunami transmission capability;

[(C) provide for establishment of a cooperative effort between the National Oceanic and Atmospheric Administration and the United States Geological Survey under which the Geological Survey provides rapid and reliable seismic information to the Administration from international and domestic seismic networks;

[(D) provide for information and data processing through the tsunami warning centers established under subsection (c);