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Providence Journal-Bulletin (Rhode Island)

September 17, 2000, Sunday, All EDITIONS

COMMENTARY - The silence of the sea - Noise pollution may be fatal to whales

BYLINE: **KENNETH BRINK**

SECTION: EDITORIAL, Pg. 13E

LENGTH: 763 words

Woods Hole, Mass. - When more than a dozen healthy whales and dolphins beached themselves near the Bahamas in March, scientists investigating the event concluded that intense underwater noise or explosions were to blame. Six beaked whales in the group ultimately died, exhibiting signs of trauma to organs associated with hearing, sound production and air intake. One researcher said the animals that died appear to have experienced the equivalent of a terrible headache - bad enough to send a human to the hospital.

The stranding occurred in the same area where the U.S. Navy was testing sonar systems designed to detect submarines operated by unfriendly nations. While it's too soon to tell whether the Navy's testing caused the noise that harmed the animals, the incident adds to the growing concerns of many scientists and environmentalists about the effects of increasing amounts of noise in the oceans.

This human-generated noise is coming from many different sources, including commercial enterprises - such as shipping and hydrocarbon exploration and production - military operations, and research programs conducted by the Navy and academic scientists. And evidence is mounting that some of this noise could interfere with breeding, feeding, migration and other life-sustaining functions of marine mammals that rely on low-frequency sounds.

The Navy's research on ocean acoustics is already under intense scrutiny. Much of the other scientific research that uses sound in the oceans also falls under rigorous regulation. But while these experiments do contribute to ocean noise, they create only a small fraction of the sounds that could hurt marine mammals. Meanwhile, the much more frequent and potentially damaging sounds associated with commercial and military operations - and even whale-watching boats - remain unregulated.

It's time for the government to consider more consistent policies and laws to protect marine mammals from all types of harmful noise. A recent report from the National Research Council concluded that Congress should consider the regulation of sounds - regardless of their source - that are likely to disrupt behaviors critical to the survival of marine mammals.

For example, the noise generated by oil drilling has been shown to cause gray whales to alter their swimming patterns. But if this forces the whales to migrate closer to shore, making them more vulnerable to predators such as killer whales, then oil activities could have a significant impact on gray whale populations.

The government should work with scientists to identify all sources of human-generated noise that, because of the intensity, duration, or proximity to marine mammals, could be seriously damaging or life-threatening.

Any new regulations need to be consistent and fair. Under current law, for example, a marine scientist would need to get a federal permit to study the way

a whale responds to the sound of prerecorded ship noise. Because there is so much concern about potential harm to whales, these permits are hard to obtain and researchers are subject to a lengthy review process. But when commercial operators, or even other scientists, actually run ships producing exactly the same sounds in the same location, they do not need research permits.

Unfortunately, few data are available to help regulators determine which types of noise are the most dangerous. Research conducted in the past has been narrowly focused on obtaining specific information about the short-term effects of a single type of sound on a few species. A much more concerted effort is needed, involving biologists, acousticians, engineers and statisticians, to conduct systematic studies that focus on learning more about the basic hearing capabilities of marine mammals, especially large whales, and how these animals use and respond to different kinds of sounds.

There is no doubt that existing policies regarding marine mammals and sound in the ocean are well-intentioned, but they are wildly inconsistent. Ship-borne ocean commerce and national defense programs are so important to our nation that we are unlikely to want to inhibit them substantially. With that in mind, we must decide how far our society is willing to go to protect marine mammals from human-generated noise. The government should then make sure that the ensuing regulations are both fair and effective.

**

Kenneth Brink, senior scientist at the Woods Hole Oceanographic Institution, Woods Hole, Mass., is chairman of the Ocean Studies Board of the National Research Council.

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The San Diego Union-Tribune

September 22, 2000, Friday

Government must regulate sounds to protect marine mammals

BYLINE: **Kenneth Brink;** Brink, senior scientist at the Woods Hole Oceanographic Institution in Woods Hole, Mass., chairs the Ocean Studies Board of the National Research Council.

SECTION: OPINION;Pg. B-9:2,7; B-11:1

LENGTH: 677 words

When more than a dozen healthy whales and dolphins beached themselves near the Bahamas in March, scientists investigating the event concluded that intense underwater noise or explosions were to blame.

Six whales in the group ultimately died, exhibiting signs of trauma to organs associated with hearing, sound production and air intake. One researcher said the animals that died appear to have experienced the equivalent of a terrible headache -- bad enough to hospitalize a human.

The stranding occurred in the same area where the U.S. Navy was testing sonar systems designed to detect submarines operated by unfriendly nations. While it's too soon to tell whether the Navy's testing caused the noise that harmed the animals, the incident adds to the growing concerns of many scientists and environmentalists about the effects of increasing amounts of noise in the oceans.

This human-generated noise is coming from many different sources, including commercial enterprises -- such as shipping and hydrocarbon exploration and production -- military operations, and research programs conducted by the Navy and academic scientists. And evidence is mounting that some of this noise could interfere with breeding, feeding, migration and other life-sustaining functions of marine mammals that rely on low-frequency sounds.

The Navy's research on ocean acoustics is already under intense scrutiny. Much of the other scientific research that uses sound in the oceans also falls under rigorous regulation. But while these experiments do contribute to ocean noise, they create only a small fraction of the sounds that could adversely affect marine mammals. Meanwhile, the much more frequent and potentially damaging sounds associated with commercial and military operations -- and even whale-watching boats -- remain unregulated.

It's time for the government to consider more consistent policies and laws to protect marine mammals from all types of harmful noise. A recent report from the National Research Council concluded that Congress should consider the regulation of sounds -- regardless of their source -- that are likely to disrupt behaviors critical to the survival of marine mammals.

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Unfortunately, little data is available to help regulators determine which types of noise are the most dangerous. Research conducted in the past has been narrowly focused on obtaining specific information about the short-term effects of a single type of sound on a few species. A much more concerted effort is needed, involving biologists, acousticians, engineers and statisticians to conduct systematic studies that focus on learning more about the basic hearing capabilities of marine mammals, especially large whales, and how these animals use and respond to different kinds of sound.

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TYPE: OP ED COLUMN.

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The San Diego Union-Tribune

September 22, 2000 Friday

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SECTION: OPINION; Pg. B-9:2,7; B-11:1

LENGTH: 669 words

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Journal of Commerce

April 29, 1997, Tuesday

Know your oceans

BYLINE: BY **KENNETH BRINK**

SECTION: EDITORIAL/OPINION; Pg. 4A

LENGTH: 745 words

Next year is the International Year of the Ocean. Yet few in this country have even heard about the event - much less given any thought to the importance of the oceans in our lives.

We are making a big mistake when we overlook the 73 percent of our planet that is covered with water. The United States is a maritime nation. We have one of the world's longest coastlines. Almost half of our international trade travels by sea.

The United States also is recognized as the world leader in ocean research. We have used our detailed knowledge of the ocean to help track hostile submarines, anticipate changes in climate, preserve recreational areas and boost fishing yields.

Yet we have allowed our leadership position to erode. Today, only 4 percent of the federal government's basic research budget goes to ocean research - down from 7 percent in 1982. We are neglecting not only a geographical but also an intellectual frontier that has a connection to everyone.

For example, many people have heard of El Nino, usually in connection with unusual weather events. During this global phenomenon, winds blowing along the equator cause changes in the waters of the Pacific, which in turn drive the winds and continue the cycle. When El Nino takes place, fisheries off Peru and California usually suffer, and spectacular floods can occur in locations that are normally dry, like Utah.

In recent years, ocean and atmospheric scientists have developed a fundamental understanding of the physical processes involved in El Nino. They now are translating this understanding into regular predictions of the phenomenon and its consequences for society.

As these forecasts grow more sophisticated, farmers will know what to plant, investors will be able to make better choices, and governments will be able to set optimal catch quotas for fish. With additional research, predictions of El Nino will become as common as the daily weather forecast.

Fisheries management is another area where knowledge of the oceans is critical. Within the United States, commercial fishing forms the backbone of many local and, in some cases, regional economies. Yet many of this nation's great fisheries are in trouble due to overfishing, habitat loss and environmental changes.

Managing fisheries is a complex task that involves both scientific knowledge and decisions informed by economics and politics. Scientific analysis to date has not played as large a role in the process as it might - partly because current understanding of fisheries is incomplete and therefore is too easy to question or dismiss.

Scientific knowledge of fisheries is undergoing huge advances, due largely to federally supported efforts to understand the basic processes that govern fish populations. For example, recent findings have shown that a previously neglected species off the coast of New England plays an important role in governing this troubled fishery. Fisheries managers will be able to use this new knowledge to move toward genuinely sustain able yields.

A final example of the ocean's importance involves national security. During the Cold War, the United States developed remarkable capabilities to track submarines. This tremendous achievement - fictionalized in Tom Clancey's popular novels - was the product of intense collaboration among oceanographers, acoustics and signal processing experts, electronics engineers, and Navy personnel.

The Cold War may be over, but the submarines and other undersea threats are still there. As submarines continually become quieter, the U.S. military must rely more and more on its knowledge of the ocean to detect ever weaker signals. The military also must be prepared to cope with conflicts like the Gulf War, where knowledge of shallow waters on the continental margins proved important for amphibious operations.

In these and many other areas, oceanographic research has had genuine payoffs for society. But benefits from fundamental scientific research can take many years to bloom from an initial concept to a specific success.

As the world population continues to skyrocket, we will have to rely on the oceans to a greater extent to meet human needs. The upcoming Year of the Ocean thus presents us with a tremendous opportunity. The United States - in cooperation with others around the world - can build public awareness, practical understanding and the prudent use of the oceans that will be essential in the years ahead.

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FNS DAYBOOK

MARCH 19, 1998, THURSDAY

EVENT: HOUSE RESOURCES COMMITTEE Fisheries Conservation, Wildlife and Oceans Subcommittee meeting

TIME: 10:00 am

SECTION: U.S. HOUSE OF REPRESENTATIVES

LENGTH: 168 words

SUBJECT: Hearing on Pending Legislation
--Bills:
--S.1213 BY HOLLINGS (D-SC): Oceans Act of 1997
--H.R.2547 BY FARR (D-CA): Oceans Act of 1997

LOCATION: 1334 Longworth House Office Bldg. --March 19, 1998

PARTICIPANTS:
--Dr. D. James Baker - Undersecretary, Oceans and Atmosphere, Department of Commerce
--Richard Gutting - Executive Vice President, National Fisheries Institute
--Roger McManus - President, Center for Marine Conservation
--Dr. Robert White - Former Member, Engineering and Resources, Commission on Marine Sciences
--Dr. William Merrell - Senior Fellow and President, H.John Heinz III Center for Science, Economics and the Environment
--Dr. **Kenneth Brink** - Chairman, Oceans Studies Board, National Academy of Sciences
--Paul Kelly - Senior Vice President, Rowan Companies, Incorporated

CONTACT: 202-225-2761

LOAD-DATE: March 19, 1998

LANGUAGE: ENGLISH

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-- Dr. Robert White - Former Member, Engineering and Resources, Commission on Marine Sciences
-- Dr. William Merrell - Senior Fellow and President, H.John Heinz III Center for Science, Economics and the Environment
-- Dr. **Kenneth Brink** - Chairman, Oceans Studies Board, National Academy of Sciences
-- Paul Kelly - Senior Vice President, Rowan Companies, Incorporated

CONTACT: 202-225-2761

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Environment and Energy Daily

March 16, 1998

HOUSE PANEL SET TO NAVIGATE OCEAN PROMOTION LEGISLATION

BYLINE: Tim Breen

SECTION: OCEANS

LENGTH: 457 words

The House Resources Fisheries Conservation, Wildlife and Oceans Subcommittee plans a Thursday hearing on three bills aimed generally at promoting the well-being of the world's oceans.

The first, S. 1213, was introduced by Sen. Ernest Hollings (D-S.C.) and passed by the Senate in November. In the first of three major provisions, the bill requires the president to develop and implement a comprehensive, long-range national ocean coastal policy. It includes budget coordination procedures to clarify the relationship of each federal ocean program to the national policy.

The bill also creates a Commission on Ocean Policy with a mandate similar to that of the Stratton Commission, the landmark panel that led to creation of the National Oceanic and Atmospheric Administration and several other ocean programs. The new commission will examine U.S. ocean and coastal activities, report within 18 months on recommendations for national policy and then sunset. The 16-member panel will be funded at $6 million over two years and represent state and local governments, industry, academic institutions and public interest groups.

Finally, the bill establishes a National Ocean Council composed of the heads of federal agencies responsible for ocean programs. The council will be responsible for coordinating the new comprehensive national policy and programs and would advise the president on development of ocean policy. It will serve as a conduit to supply information to the commission and help implement its recommendations, and would sunset one year after the commission submits its final report.

The remaining two bills are essentially variations on the first.

H.R. 2547, introduced by subcommittee Chairman Jim Saxton (R-N.J.), does not establish a National Ocean Council, and provides for the commission to meet every five years after submitting its report to check on its implementation and make any necessary changes. H.R. 3445, also introduced by Saxton, makes fine-scale changes to both bills.

Schedule: The hearing is planned for 10 a.m., Thursday, March 19, in 1334 Longworth.

Witnesses: Tentatively set to testify are NOAA Administrator D. James Baker; Robert White, former member of the Commission on Marine Science, Engineering and Fisheries; **Kenneth Brink,** chairman of the ocean sciences board of the National Academy of

Sciences; Richard Gutting, executive vice president of the National Fisheries Institute; Roger McManus, president of the Center for Marine Conservation; William Merrill, senior fellow and president of the H. John Heinz III Center for Science, Economics and the Environment; and Paul Kelly, senior vice president of Rowan Companies, Inc.

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