Jacksonville
Range Complex

Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS)

Marine Resources, Protection, and Research

The Navy shares the ocean environment with marine mammals, fish, turtles, birds, and other wildlife that rely on the marine habitat. Understanding the marine environment and taking precautions to minimize effects on marine resources are Navy priorities.

PUTTING THE LATEST SCIENCE AND TECHNOLOGY TO PRACTICAL USE

The National Environmental Policy Act (NEPA) process gives the Navy an opportunity to review and assess its activities, ensuring that the benefits of recent scientific and technological advances are applied toward minimizing environmental effects. As part of this process, scientists compile and analyze distribution, abundance, and movement patterns, as well as potential acoustic effects. Examples of available information include:

- Marine Resource Assessments: Comprehensive reviews of protected species sighting, stranding, and survey data, as well as peer-reviewed literature and National Marine Fisheries Service reports, including stock assessments and recovery plans.
- Density Estimates: Estimates of species abundance in a study area based on analysis of shipboard and/or aerial survey data.
- Scientific Literature and Study Results: Results of research focused on hearing and diving physiology, behavioral responses to human generated sound, and reducing the effects of sound.
- Sound Propagation and Effects Modeling: Tools to model how sound travels through water and potentially affects marine species.

THE NAVY'S ONGOING PROTECTIVE MEASURES

Environmental protection efforts have been a part of Navy activities for decades, enabling vital Navy training while protecting the marine environment. The Navy has developed a sophisticated set of procedures and tools to avoid harm to marine species and habitats. Every Navy ship and its crew follow these procedures and are thoroughly trained in their use. Examples include:

Avoiding important marine habitats

Sargassum mats (floating seaweed) and coral reefs are important habitats for marine species. Sailors are aware of coral and live hard bottom areas and monitor for Sargassum mats, and implement avoidance measures to ensure that neither is affected. Training is also planned to avoid conducting potentially impacting activities in and around established National Marine Sanctuaries, like Grey's Reef. In addition, North Atlantic right whale critical habitat is avoided to the extent possible.

Navy shipboard lookouts are highly qualified and experienced observers of the marine environment. These personnel undergo extensive training to become qualified, including specific education in marine species awareness.

IMPLEMENTING PROTECTIVE MEASURES FOR NORTH ATLANTIC RIGHT WHALES

Protection of the North Atlantic right whale is an issue of considerable concern and interest along the U.S. East coast. The waters from Maine to Jacksonville are seasonal habitat for migrating whales. The waters of southern Georgia and northern Florida are particularly important, as they are calving grounds for this endangered species during the winter months. Navy protective efforts include:

- Conducting comprehensive crew training to identify and spot North Atlantic right whales.
- Increasing crew member vigilance and implementing established mitigation measures during the seasonal migration of the North Atlantic right whales for areas along the eastern coast from Block Island Sound southward to Sebastian Inlet, Florida.
- Employing consistent practices to avoid approaching any whale head-on and keeping at least 500 yards away from observed whales.
- Funding for the Early Warning System which alerts the public of whale sightings.
- Implementation of the Northern Right Whale Fusion Center at FACSFAC JAX, a central location for multiple parties to report whale sightings and which alerts all Naval Units underway via CHAT/SATCOM of these sightings.

Establishing standoff distances for marine species

Naval vessels avoid approaching whales head-on, and maneuver to keep at least 500 yards away from observed whales.

Monitoring for marine species prior to training exercises

Prior to training with ordnance, Navy personnel visually monitor the ocean area for marine mammal and sea turtle activity. If the animals are present, the training activity may be altered or suspended to minimize the potential for effects.

Safety Zones: The Navy adheres to an avoidance distance of 460 meters (approximately 500 yards) if a whale is sighted.

Reducing vessel speeds to avoid interactions

While in transit, Naval vessel operators are alert at all times, use extreme caution, and proceed at a safe speed so that the vessel can take proper and effective action to avoid a collision with any marine animal.

Posting shipboard lookouts

Navy shipboard lookouts (also referred to as "watchstanders") are highly qualified and experienced observers of the marine environment. These personnel undergo extensive training, approved by the National Marine Fisheries Service, to become qualified, including specific education in marine species awareness. This training also addresses the watchstander's role in environmental protection, laws governing the protection of marine species, and the Navy's commitment to environmental stewardship.

SUPPORTING VITAL RESEARCH

The U.S. Navy takes its environmental responsibilities seriously and is a world leader in marine mammal research. In 2008, the Navy provided over $26 million to universities, research institutions, federal laboratories, private companies, and independent researchers around the world to study marine mammals. Over the past 5 years, the Navy has provided over $100 million for marine mammal research. The Navy sponsors approximately 70% of all U.S. research concerning the effects of human-generated sound on marine mammals and 50% of such research conducted worldwide. This ongoing research includes studies on hearing and hearing sensitivity, auditory effects, dive and behavioral response models, noise impacts, beaked whale global distribution, modeling of beaked whale hearing and response, tagging of free ranging marine animals at sea, and radar-based detection of marine mammals from ships. These studies are crucial to the overall knowledge base on marine species and the potential effects from anthropogenic (human-made) sound and Navy training activities. Major topics of Navy-supported research include:

Better understanding of marine species distribution and important habitat areas

The Navy actively supports several efforts to map marine species distribution and uses the latest techniques to develop predictive models of marine mammal habitat and density. The Ocean Biogeographic Information System, Spatial Ecological Analysis of Marine Megavertebrate Animal Populations (OBIS-SEAMAP) project, led by researchers at Duke University, is developing a global database for marine mammal, seabird, and sea turtle distribution and abundance information. Two current projects funded through the Strategic Environmental Research & Development Program (SERDP) are using cutting-edge spatial modeling and statistical methods to develop predictive models of marine mammal distribution and abundance that will be extremely beneficial to the Navy for environmental planning and avoiding potential effects from training activities.

Developing methods to detect and monitor marine species prior to and during training

The Navy is currently researching and developing the Marine Mammal Monitoring on Navy Ranges program (M3R). The goal of this program is to develop a toolset for passive acoustic detection, localization, identifications, and tracking of marine mammals using existing Navy undersea range infrastructure.

Understanding the effects of sound on marine mammals, sea turtles, and fish

The Environmental Consequences of Underwater Sound (ECOUS) program brought together expert researchers to discuss the effects of human-produced underwater sound on marine life. The Navy is also actively engaged in the Federal Advisory Committee on the Effects of Anthropogenic Noise on Marine Mammals.

Developing tools to model and estimate potential effects of sound

The Effects of Sound on the Marine Environment (ESME) program focuses on producing a computer model of animal response to sound produced by human activities, including sonar, explosives, and acoustic communication.

Public involvement is a fundamental part of the Jacksonville Range Complex EIS/OEIS development and the Navy wants and appreciates your comments. The Navy has established several venues and informational resource areas for the public to learn and provide input.

Comments on the Draft Jacksonville Range Complex EIS/OEIS will be accepted via mail, fax, or the project Web site. All comments should be submitted no later than August 11, 2008 for consideration in the Final Jacksonville Range Complex EIS/OEIS.

THE NAVY WANTS YOUR INPUT!

For more information or to submit comments, please contact:

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