

Mariana Islands Range Complex

*Environmental Impact Statement/
Overseas Environmental Impact Statement*

Marine Resources, Protection and Research



PROTECTING MARINE RESOURCES

The coast and sea areas around the Mariana Islands are very important to the people who live here. These areas are home to many plants and animals, including corals, dolphins and sea turtles. The coast and sea also are places where people of the Marianas can make a living or have fun swimming, surfing, boating and diving.

The marine areas of the Marianas are also important to the U.S. Military Services. Some of these sea areas are part of the Mariana Islands Range Complex. The Services, particularly the U.S. Coast Guard and U.S. Navy, use the areas in the Mariana Islands Range Complex to train Service men and women to defend the United States and its territories, and to respond to emergencies such as natural disasters. The Mariana Islands Range Complex is one of the only places in the western Pacific where Service men and women can learn the skills they need to work on ships, in submarines and in aircraft so they will be prepared if they are sent to respond to an emergency or threat.

Protecting the marine environment of the Mariana Islands is an important goal for the Services. The Navy follows programs to care for the environment and continues to improve these programs as they learn more about how training activities could potentially affect the marine environment. As you read on, you will learn about the programs the Navy follows to protect the coast and sea areas of the Mariana Islands.

CORAL REEFS



The Mariana Islands are home to several types of coral reefs, both close to the islands and

farther offshore. Coral reefs and rain forests are considered the world's two most diverse and complex ecosystems. Many of the coral reefs in the Marianas are well developed and support a wide range of recreational and commercial activities. They also provide natural shoreline protection.

Coral reefs located further from shore are generally healthier, while corals in more populated areas are more at risk from pollution (chemicals and sediments) draining into the ocean and damaging the reefs. Reefs are vulnerable to many forms of stress, including overfishing, disease, storms and global warming.

The U.S. Navy works to limit the damage their activities may cause to coral reefs around the Mariana Islands.

- Since 1999, the Navy has conducted regular surveys to study the condition of coral reefs and other plants and animals around Farallon de Medinilla, where the Navy conducts many of its training activities. Based upon these surveys, there is no evidence that the training activities have had any significant adverse impacts upon FDM's near shore marine resources.
- The Navy has also conducted reef surveys before and after training exercises on the Navy's amphibious training ranges in the area. These investigations indicate that no significant adverse impacts have resulted from the training.

- In 2000 and 2001, the National Oceanic and Atmospheric Administration (NOAA Fisheries), with Navy support, conducted an extensive survey using advanced technology, including aerial surveys using radar, and other scientific survey methods to study coral reefs throughout Guam and the Commonwealth of the Northern Mariana Islands (CNMI).
- Investigations by Dr. Paulay, formerly of the University of Guam, and other researchers have shown that Apra Harbor supports abundant and diverse marine resources, including well developed coral reefs.
- The Navy actively participates in the U.S. Coral Reef Task Force, a group of government agencies that works to protect coral reefs around the world.

SEA TURTLES



Green and hawksbill sea turtles spend time on the shores and in the ocean around Guam and

all of the islands in CNMI. The U.S. Navy follows special rules so they do not disturb these animals or their nesting areas during training by:

- Checking training areas before activities begin to avoid nesting and foraging areas;
- Moving vehicles and people away from turtle nesting areas and minimizing use of foraging areas;
- Watching known nesting areas during nighttime training;
- Stopping training activities if turtles or their nests are spotted, and delaying the activity until turtles have left the training area; and
- Reporting any impacts to sea turtles or their nests from training activities.

MARINE MAMMALS



In 2007, the Navy conducted a four month comprehensive marine mammal and sea turtle

survey in the Marianas. Twelve species of marine mammals were observed. To protect them, the U.S. Navy follows strict guidelines in the Marianas and worldwide while training at sea.

- ❑ At least three well-trained lookouts are on watch 24 hours per day on Navy ships. At least five lookouts are present during anti-submarine warfare training exercises. Lookouts have been trained in marine mammal awareness.
- ❑ All available sensors and optical systems are used during active sonar training. These include:
 - Passive sonar to listen for marine mammal presence
 - Pedestal-mounted “Big-Eye” binoculars
 - Night vision goggles
 - Surveying the area by using Navy aircraft involved in training exercises
- ❑ A safety zone is established around a sonar source during training exercises using active sonar. If a marine mammal enters this zone, the Navy powers down the sonar. Sonar is powered off if the marine mammal enters within 200 yards of the sonar dome.
- ❑ Marine mammals sighted during major exercises are reported, and the Navy coordinates with the National Marine Fisheries Service in the event of a stranding.

The U.S. Defense Representative is accepting comments on the Mariana Islands Range Complex Draft EIS/OEIS through March 16, 2009.

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SHARING THE SEA

It is important for the U.S. Military Services to be able to train realistically to protect themselves, the United States and its territories. The Services also know that training could affect the environment or other resources important to the people of the Mariana Islands. The military follows strict rules during training activities to protect the islands' environment.

The Mariana Islands, its environment, culture and people are important to the Services. To make sure the military continues to protect the islands' resources while training, a Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) has been prepared to study current and future training activities. This study will help the Services understand the effects on the environment, including marine, natural and cultural resources and the economic well-being of the people of the Marianas from training and testing activities. The Mariana Islands Range Complex Draft EIS/OEIS was released for public review on January 30, 2009.

For more information about the EIS/OEIS, visit www.MarianasRangeComplexEIS.com.

WHAT IS SONAR?

Sound Navigation and Ranging uses soundwaves to locate submerged objects such as submarines.

Naval ships rely on sonar to counter enemy submarines in wartime and to develop the skills needed to effectively detect and monitor these submarines during peacetime.

The Navy understands that the use of sonar may potentially affect certain species of marine mammals under certain conditions and takes proactive, protective measures to avoid those conditions that could cause harm or injury.

Marine Mammal Research

The underwater world of marine mammals is complicated and difficult to survey. There is still much to learn about how marine mammals live, travel and respond to human activities in the ocean. Over the past five years, the Navy has funded more than \$100 million in marine mammal research. In 2008, the Navy provided \$26 million to universities, research institutions and independent researchers to study marine mammals. The Navy uses the results of research studies to better understand marine mammal distribution, physiology and behavior.

The Navy funded a marine mammal and sea turtle survey in the Marianas in 2007 which included visual and acoustic data collection. This information helps the Navy to better understand what types of marine mammals are found in the Marianas.

FISHING AND RECREATION

Many people of the Mariana Islands depend on the coast and the ocean to make a living through tourism, boating, fishing and shipping. The coast and ocean are also great places for recreation activities, such as swimming, surfing and scuba diving.

The U.S. Navy, the U.S. Coast Guard and local Civil Defense work together to make sure people are safe while enjoying the ocean. The agencies cooperate in developing information and notices to the public to avoid areas of concern. For example, these agencies periodically notify the public of areas that are off-limits for safety reasons. Because of dangerous waves near Naval Base Guam, the Navy requested the cooperating agencies keep this area off-limits to everyone.

Fishermen come to fish and transit through the waters around Farallon de Medinilla. To keep fishermen safe, vessels can not come within 10 nautical miles of the shoreline. When infrequent training occurs with certain weapons, temporary advisory notices may extend the safety zone beyond 10 nautical miles.