

Hawaii's ocean area is one of the most ecologically productive and diverse in the world. These waters are home to:

- ◆ 400 species of fish
- ◆ 4,000 species of marine invertebrates
- ◆ 24 species of marine mammals, including whales, dolphins and Hawaiian monk seals

As the Navy conducts activities in the waters off Hawaii, it takes care to protect these important species.



### Preventing Marine Mammal Strandings

To minimize the potential for a stranding event, the Navy takes precautions and uses software tools when planning and conducting exercises to avoid certain factors that could potentially harm marine mammals.



## Hawaii-Southern California Training and Testing EIS/OEIS

### Caring for Marine Resources through Protection and Research

The U.S. Navy uses all available means to detect marine mammals and reduces sonar transmission power when they are sighted within certain distances to avoid and minimize mammals' exposure to sonar.

### Marine Mammal Research

The Navy is a world leader in marine mammal research, and currently provides more than \$20 million per year to universities and researchers around the world. This research helps the Navy to:

- ◆ Understand marine species distribution and important habitat areas;
- ◆ Develop methods to detect and monitor marine species before and during training;
- ◆ Understand the effects of sound on marine species; and
- ◆ Develop tools to model and estimate potential effects of sound.

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### Marine Mammal Protective Measures

To minimize environmental impacts while conducting exercises at sea, the Navy has implemented a variety of protective measures:

- ◆ Scanning the area visually and with passive sonar to detect the presence of marine mammals and sea turtles.
- ◆ Posting at least three well-trained lookouts at all times.
- ◆ Posting two additional dedicated marine mammal lookouts during active sonar training.
- ◆ Using all available sensors and optical systems during active sonar training.
- ◆ Establishing a safety zone around a sonar source during active sonar training.



- ◆ Reporting marine mammals sighted during major training and testing exercises and coordinating with the National Marine Fisheries Service in the event of a stranding.