ATLANTIC FLEET TRAINING AND TESTING

SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT/ OVERSEAS ENVIRONMENTAL IMPACT STATEMENT
for Activities in 2025 and Beyond

MARINE RESOURCE PROTECTION

In accordance with the National Environmental Policy Act (NEPA), the Navy, Marine Corps, and Coast Guard are using best available science and methods of analysis to assess the potential environmental impacts associated with conducting training and testing activities within the Atlantic Fleet Training and Testing (AFTT) Study Area, including activities that involve the use of active sonar and explosives. Most of these training and testing activities have been previously analyzed and authorized under the Marine Mammal Protection Act and Endangered Species Act, and are similar to the types of activities that have been occurring in the Study Area for decades. The National Marine Fisheries Service (NMFS) is a cooperating agency and has been involved during the NEPA process in preparing the Supplemental Environmental Impact Statement/Overseas Environmental Impact Statement (SEIS/OEIS).

EXISTING MITIGATION MEASURES AT SEA

The waters of the Atlantic Ocean, Gulf of Mexico, and portions of the Caribbean Sea within the Study Area are important for recreation and commercial activities, and are home to a variety of marine plants and animals, including whales, invertebrates, dolphins, seals, turtles, birds, and fish.

Avoiding impacts to the marine environment from training and testing is an important goal for the Navy, Marine Corps, and Coast Guard. In their commitment to environmental protection, and in compliance with existing laws, permits, and authorizations, strict guidelines are followed and measures to reduce potential effects on marine species while training and testing are employed. The Navy and Coast Guard employ a variety of measures to protect marine species and reduce impact to the marine environment. The measures listed in this fact sheet include some but not all of these mitigation measures.

Posting qualified Lookouts

Navy and Coast Guard personnel undertake extensive training to qualify as Lookouts in accordance with the Navy's Lookout Training Handbook. Additionally, all Lookouts must complete Marine Species Awareness Training approved by NMFS. Navy Lookouts visually observe for the presence of marine mammals and sea turtles within mitigation zones.

Activity-Based Mitigation

Mitigation zones were developed for activities that use active sonar, explosives, air guns, pile driving, towed in-water devices, vessels, and non-explosive practice munitions. These activities are halted or modified when a marine mammal or sea turtle is observed in a mitigation zone.

Mitigation Areas

There are established mitigation areas around important seafloor features, such as shallow-water coral reefs, whale feeding and breeding grounds, and shipwrecks. Precision anchoring or explosive mine countermeasure activities are not conducted within these mitigation areas.

Some types of training and testing activities are restricted during certain times of the year and in specific geographic locations to further avoid impacts on marine mammals.

Navigating safely

Navy and Coast Guard vessel operators follow all applicable navigation rules, operate at a speed consistent with mission and safety, and take proper action if there is a risk of collision. Vessel operators are alert at all times for objects in their path and maneuver to maintain a distance of at least 500 yards from whales and 200 yards from other marine mammals.

Reporting to National Marine Fisheries Service

As part of its Integrated Comprehensive Monitoring Program, the Navy worked with NMFS to coordinate monitoring efforts during previous Phases, and will continue to do so, along with the Marine Corps and Coast Guard. On the Atlantic and Gulf coasts, marine species are monitored to better understand species occurrence. NMFS is also provided annual training and testing activity reports, annual monitoring reports, and reports of interactions with protected marine species.

SUPPORTING INDEPENDENT RESEARCH

The Navy is a world leader in marine species research and partners with state and federal agencies, universities, research institutions, federal laboratories, and private researchers around the world to better understand the potential effects the training and testing actions may have on the environment. Much of this research is focused on:

- Marine mammal ecology and population dynamics
- Acoustic criteria and thresholds to assess effects of sounds on marine species
- Improved tools and methods to model potential effects of underwater sound
- Development of new technologies to improve the effectiveness of mitigation and monitoring

APPLYING THE LATEST SCIENCE AND TECHNOLOGY

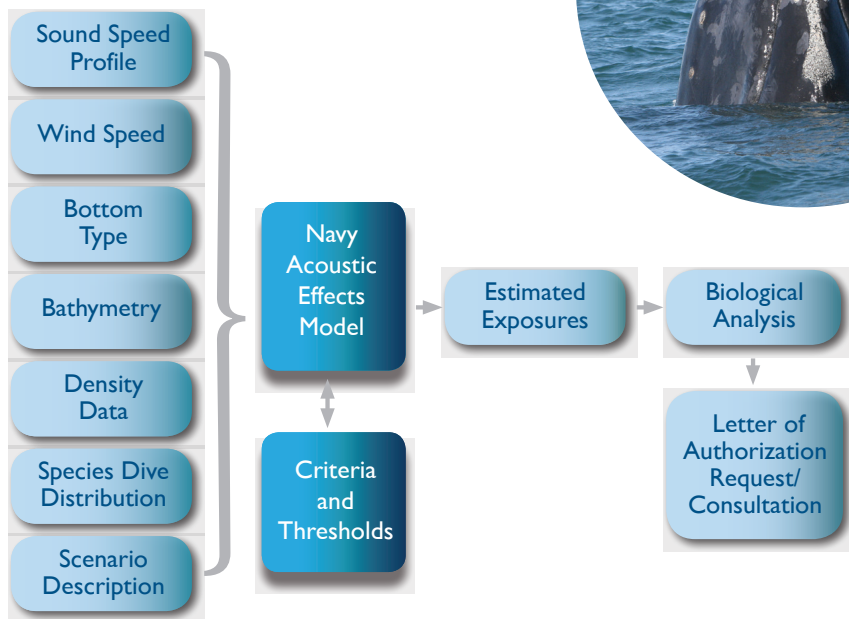### Protective Measures Assessment Protocol

The Protective Measures Assessment Protocol (PMAP) is a compliance and situational-awareness software tool that the Navy uses prior to conducting all training and testing activities. Based on the location, date, and type of activity being conducted, PMAP generates a report of the specific measures that must be implemented to protect marine resources and to ensure compliance with mitigation requirements. In addition, PMAP also provides a map that displays the location of the activity overlaid with relevant environmental data, such as mapped locations of shallow-water coral reefs. The final suite of required mitigation measures contained in the AFTT Records of Decision, the Marine Mammal Protection Act Letters of Authorization, and the Endangered Species Act Biological Opinions are integrated into PMAP.

Quantifying Acoustic Impacts

Over 20 years ago, in coordination with NMFS, the Navy developed acoustic exposure criteria to predict hearing impacts in marine mammals and sea turtles resulting from different types and levels of sound.

The Navy Acoustic Effects Model (NAEMO) factors these criteria, as well as a variety of other parameters into its quantitative modeling, including marine species density, dive profiles, acoustic source data, and factors that affect how sound travels in the ocean, such as water temperature and bathymetry.

In the years since its creation, the Navy has worked diligently to update and maintain NAEMO to ensure that it uses the latest science and computing software and hardware to process the data.

Sound Speed Profile → Wind Speed → Bottom Type → Bathymetry → Density Data → Species Dive Distribution → Scenario Description → Navy Acoustic Effects Model → Estimated Exposures → Biological Analysis → Letter of Authorization Request/ Consultation

Criteria and Thresholds

The Navy Acoustic Effects Model is an advanced modeling and simulation software tool used to assess potential effects on marine mammals from sonar and explosives. Scan QR Code for more information.

NAVY SPECIES MONITORING

The Navy has worked closely with NMFS to develop an integrated and comprehensive approach to coordinate marine species monitoring efforts across multiple study areas in the Pacific and Atlantic Oceans. Monitoring program objectives include:

- Better understanding of the occurrence and distribution in areas where training and testing occurs

- Assessing the potential behavioral responses of individual animals to sonar and explosives

- Assessing the effectiveness of current protective measures.

PROTECTING NORTH ATLANTIC RIGHT WHALES

North Atlantic right whales are one of the most highly endangered species of marine mammals in the world with only about 360 individuals remaining. They are particularly susceptible to vessel strikes - one of the leading causes of mortality. The Navy has been supporting conservation and protection efforts for this species for over 20 years and through the past decade has gradually increased its annual investment by working with researchers from Duke University, Woods Hole Oceanographic Institution, the National Oceanic and Atmospheric Administration Northeast Fisheries Science Center, and Florida Fish and Wildlife Conservation Commission. These groups use a variety of monitoring methods including aerial and vessel surveys, drones, passive acoustics, and tagging to better understand the movements and behavior of this species, and protect individuals by reporting detection locations through information systems accessible by mariners. This work helps inform the Navy about right whale occurrence and behavior within and outside of training ranges and testing areas, as well as helps resource managers better protect this species.

For more information, please visit:
www.navymarinespeciesmonitoring.us/