



GULF^{of} ALASKA



NAVY TRAINING IN THE
GULF OF ALASKA
NORTHERN EDGE EXERCISES



INTRODUCTION

The Gulf of Alaska provides invaluable training space needed to realistically train United States (U.S.) service members to maintain readiness to protect and defend the U.S. and its allies. Alaska's largest multi-service military training exercise is called Northern Edge. Maritime training activities conducted during Northern Edge occur within a designated Temporary Maritime Activities Area,

which is situated south of Prince William Sound and east of Kodiak Island (see Figure 1 on page 4).

The U.S. Navy analyzed the potential environmental impacts of training activities in the Gulf of Alaska, which are documented in the 2011 Gulf of Alaska Navy Training Activities Final Environmental Impact Statement/ Overseas Environmental Impact Statement (EIS/OEIS) and the Gulf of

Alaska Navy Training Activities Final Supplemental EIS/OEIS, released in July 2016. In the 2016 Supplemental EIS/OEIS, the Navy updated the environmental analyses to incorporate the most current science and analysis methods, and to support continued compliance with the Marine Mammal Protection Act and the Endangered Species Act. These documents are available at www.GOAEIS.com.



MILITARY TRAINING IN ALASKA

Since 1975, the U.S. Pacific Command has met defense objectives through training military forces for potential crises in the Indo-Asia-Pacific region. Military training in Alaska is conducted within the Joint Pacific Alaska Range Complex, which is a military training area comprised of the Temporary Maritime Activities Area in the Gulf of Alaska and U.S. Air Force and U.S. Army inland air and land training areas. These training areas provide realistic environments for military forces and interagency partners to practice both simple and complex training activities. Training in Alaska allows for varying degrees of complexity and diversity, which enhances the quality of training and better prepares service members to respond to real-world situations.

Joint exercises are training activities that bring together personnel from different branches of the military to plan and conduct activities at sea, in the air, and on land. These exercises provide opportunities for forces to practice tactics, techniques, and procedures to improve coordination and fulfill military readiness requirements.



Training in Alaska is critical for the readiness of military personnel who protect and defend the security of the United States and our allies.

IMPORTANCE OF REALISTIC TRAINING

MISSION OF THE U.S. NAVY

To maintain, train, and equip combat-ready military forces capable of winning wars, deterring aggression, and maintaining freedom of the seas.

NAVY TRAINING REQUIREMENT IN THE GULF OF ALASKA

To prepare Sailors for deployment by training in realistic environments.

Naval forces must be ready to respond to a wide range of situations—from large-scale conflict in a variety of geographic areas to maritime security, humanitarian assistance, and disaster relief efforts. The Navy must maintain a rigorous, comprehensive training regimen to ensure ships are prepared to deploy on schedule and Sailors are ready to carry out their duties when called upon. Sailors must train with their equipment and systems before use during deployment.

Skills needed to achieve military readiness are perishable without constant practice. Training must therefore be diverse and as realistic as possible to prepare Sailors to complete their mission and to ensure their success and survival. While simulators provide early skill repetition and enhance teamwork, there is no substitute for live training in a realistic environment. Alaska has these realistic environments and sufficient area necessary for safety and mission success.



NORTHERN EDGE JOINT TRAINING EXERCISES

Northern Edge exercises are Alaska's largest joint training exercises and occur biennially (conducted every other year in odd years). The Navy has participated in Northern Edge exercises since the 1990s. The exercises are designed to replicate challenging scenarios and prepare service members to respond to crises, such as natural disasters, global conflicts, and threats to homeland security.

The Northern Edge exercises typically last up to three weeks and occur between April and October when weather conditions are more ideal, which enhances training and reduces safety risk. Training activities are not conducted in extreme weather conditions due to safety concerns. Given the significant investment in resources associated with bringing military forces to Alaska, the exercise is scheduled for periods with the greatest chance for favorable weather. The specific dates of each biennial exercise are determined based on the availability of forces, deployment schedules, maintenance periods, and other exercises underway within the Pacific.

Between 6,000 and 14,000 personnel from all U.S. military services and interagency partners participate in these exercises. The size of the exercises varies, but each requires vast, Alaskan-scale distances, similar to the conditions participants may face in the real world. Training is comprehensive and as realistic as possible. Maritime activities may include the following types of training:

- » Operating aircraft, ships, and submarines
- » Conducting weapons training
- » Practicing aerial surveillance
- » Detecting and locating submarines
- » Practicing vessel searches and interdiction

The potential environmental impacts of the Northern Edge exercises were analyzed in the 2011 and 2016 Gulf of Alaska Navy Training Activities EISs/OEISs. The Navy analyzed and was permitted for the maximum level of activity, both in the number of exercises and in the scope of activities. In actual terms, for any given exercise, the scope of activities is generally far less. The Navy takes this approach to analysis to include all potential training requirements should changes in real world events and Navy readiness priorities occur.

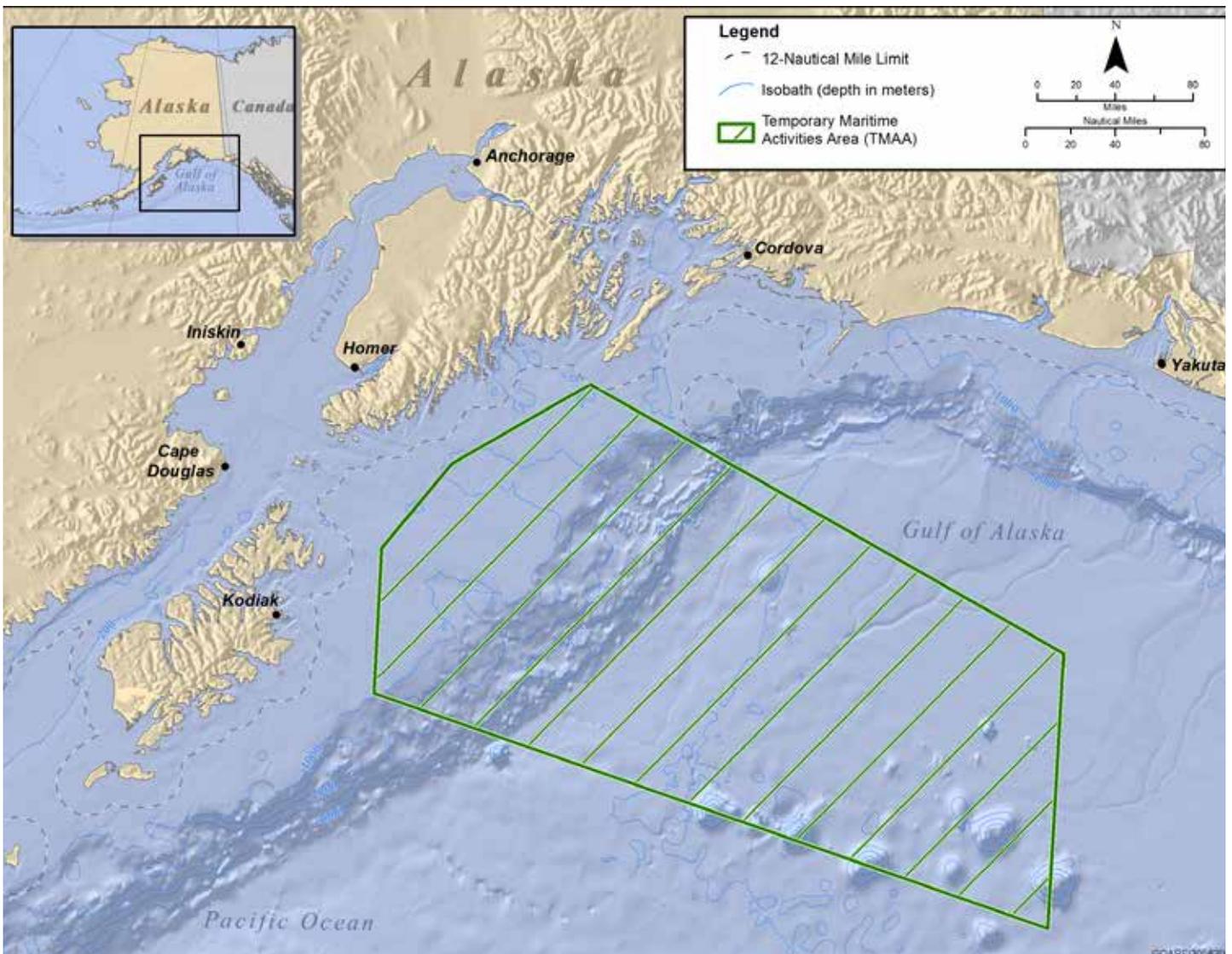
TEMPORARY MARITIME ACTIVITIES AREA

During Northern Edge exercises, the Navy establishes a maritime training area in the Gulf of Alaska called the Temporary Maritime Activities Area (TMAA). This area provides an ideal location for training as it is in proximity to a large contingent of U.S. Air Force and Army land training areas and airspace, as well as personnel, resources, equipment, and infrastructure in Alaska. The TMAA provides the vast space needed to maximize the realism of the exercises.

The TMAA is located far enough offshore of coastal areas to minimize impacts on Alaska Native tribal, commercial, and recreational fishing. The TMAA avoids many sensitive resources of the coastal regions and also has minimal overlap with salmon, herring, groundfish, and shellfish management areas.



Figure 1. Maritime training activities conducted during Northern Edge occur within a designated Temporary Maritime Activities Area in the Gulf of Alaska, which is within flight range of several Air Force and Army air and land training areas. Training in this area minimizes impacts on sensitive marine resources, and avoids or minimizes overlap with fishing management areas.



IMPORTANCE OF TRAINING WITH ACTIVE SONAR AND EXPLOSIVES

TRAINING WITH EXPLOSIVES

Training with explosives (live ordnance) significantly enhances the safety of military personnel in combat, improving readiness and equipment reliability. Training in a high-stress environment, including the use of and exposure to live ordnance, is necessary for Sailors to be ready to respond to crises and national security threats. To the extent possible, Sailors use simulators and other available technologies. Simulation, however, cannot completely replace training in the actual environment. The Navy issues notices to mariners and airmen prior to any potentially hazardous activities to ensure public safety.



TRAINING WITH SONAR

Quiet submarines, torpedoes, and in-water mines are true threats to global commerce, national security, and the safety of military personnel. As a result, defense against enemy submarines is a top priority for the Navy. Active sonar, which sends out a pulse of energy (often called a “ping”), is the most effective method of detecting these threats.

To detect and counter hostile submarines, the Navy uses both passive and active sonar. Sonar proficiency is a complex and perishable skill that requires regular, hands-on training in realistic and diverse conditions, such as those provided in the Gulf of Alaska.

Lack of realistic training could jeopardize the lives of Sailors in real-life combat situations. Sailors use simulators and other advanced technologies; however, simulation cannot completely replace training in the actual environment.



SUMMARY OF ENVIRONMENTAL IMPACT ANALYSIS

The following is a summary of potential direct impacts on marine species and the marine environment from training, as well as cumulative effects. For more detailed information, please refer to the 2016 Final Supplemental EIS/OEIS, available at www.GOAEIS.com.

EXPENDED MATERIALS

- » Training activities that would result in expended materials would occur in deep ocean areas, far from human activities
- » Materials are nontoxic, typically degrade into inert (non-reactive) compounds, and will not bioaccumulate (concentrate) in species or enter the ecosystem

MARINE MAMMALS

Training may affect certain marine mammals, including threatened and endangered species; however, most impacts are temporary, short-term disruptions in behavior.

- » No long-term consequences for populations
- » No effect on critical habitat
- » A very small number of physiological effects (injury or hearing loss) could occur, but mitigation measures would minimize impacts
- » No mortalities predicted

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SUMMARY OF ENVIRONMENTAL IMPACT ANALYSIS

Continued from page 5.

FISH AND SHELLFISH

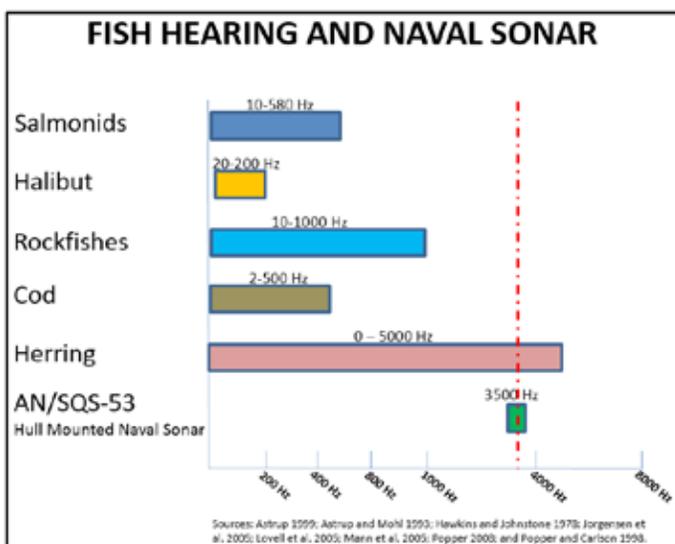
- » Mid-frequency active sonar is not heard by shellfish and most fish species (see Figure 2)
- » Fish species that are able to hear sonar are not likely to be affected because they would need to be near the sonar source for a long period of time, and the zone of effect near the source is extremely small
- » The use of explosives may injure individual fish if in the immediate vicinity of detonations
- » Military expended materials will not significantly affect fish, shellfish, or habitats
- » Training will not interfere with Alaska Native tribal, commercial, or recreational fishing

CUMULATIVE EFFECTS

Cumulative effects are impacts on the environment when added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes the actions.

- » Training may have an incremental impact on marine mammals in the TMAA when considered in conjunction with other actions
- » Training will likely have negligible cumulative effects on other environmental resources

Figure 2. Most species of fish do not hear sound in the mid-frequency range. A recent study also concluded that the use of naval sonar poses little to no risk to populations of herring, regardless of season (Sivle et al., 2015).



NAVY-WIDE MARINE MITIGATION MEASURES

OBSERVING THE AREA PRIOR TO ACTIVITIES

Marine mammals and sea turtles can only be detected visually while at the surface, and marine mammals can only be detected acoustically while vocalizing underwater. Therefore, before certain activities are conducted, the area is scanned visually and, when possible, monitored acoustically.

POSTING QUALIFIED LOOKOUTS

Navy personnel undertake extensive training to qualify as a Lookout in accordance with the Navy's Lookout Training Handbook. All Lookouts must complete Marine Species Awareness Training approved by the National Marine Fisheries Service (www.youtube.com/watch?v=KKo3r1yVBBA). For specified activities, Navy Lookouts visually observe for the presence of marine species within mitigation zones prior to and during the activity.

ESTABLISHING MITIGATION ZONES FOR MARINE SPECIES

A mitigation zone is designed to reduce potential impacts on marine species and sensitive habitats from certain training activities. The size of a mitigation zone is unique for each specific activity. Navy personnel visually observe each zone. If a marine mammal or sea turtle is detected within the mitigation zone, the activity would cease until the animal exits the zone.

NAVIGATING SAFELY

While in transit, Navy vessel operators are alert at all times for objects in their path. Operators use extreme caution, operate at a speed consistent with mission and safety, and take proper action if there is a risk of collision with a marine animal.

REPORTING MONITORING RESULTS

As part of its Integrated Comprehensive Monitoring Program, the Navy works closely with the National Marine Fisheries Service to coordinate monitoring efforts across all ocean regions where the Navy trains. In the Gulf of Alaska, the Navy monitors marine species to better understand species occurrence. The Navy provides annual reports of training activities and monitoring studies to the National Marine Fisheries Service. Visit www.navy-marine-species-monitoring.us for more information on the Navy's marine species monitoring program.

PROTECTING MARINE SPECIES AND THE MARINE ENVIRONMENT

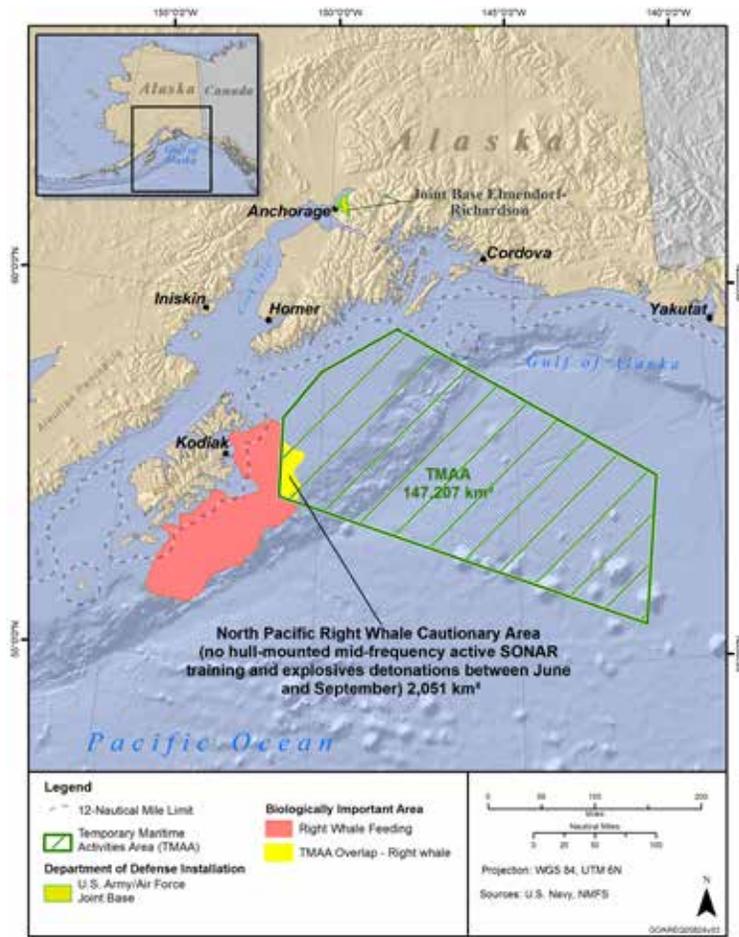
ADDITIONAL CAUTIONARY MEASURES IN THE GULF OF ALASKA

The Navy applies the best available science when analyzing the potential environmental impacts and developing measures to protect or mitigate effects on the environment. In addition to the Navy-wide measures in place, additional cautionary measures were developed for the TMAA.

ESTABLISHING A NORTH PACIFIC RIGHT WHALE CAUTIONARY AREA

The Navy will establish a cautionary area for the North Pacific right whale (see Figure 3) during exercises occurring during the whales' feeding time between June and September. The Navy will not use surface ship hull-mounted mid-frequency sonar or explosives during training events in the cautionary area within those feeding months.

Figure 3. North Pacific right whale cautionary area.



PROHIBITING EXPLOSIVES TRAINING OVER PORTLOCK BANK

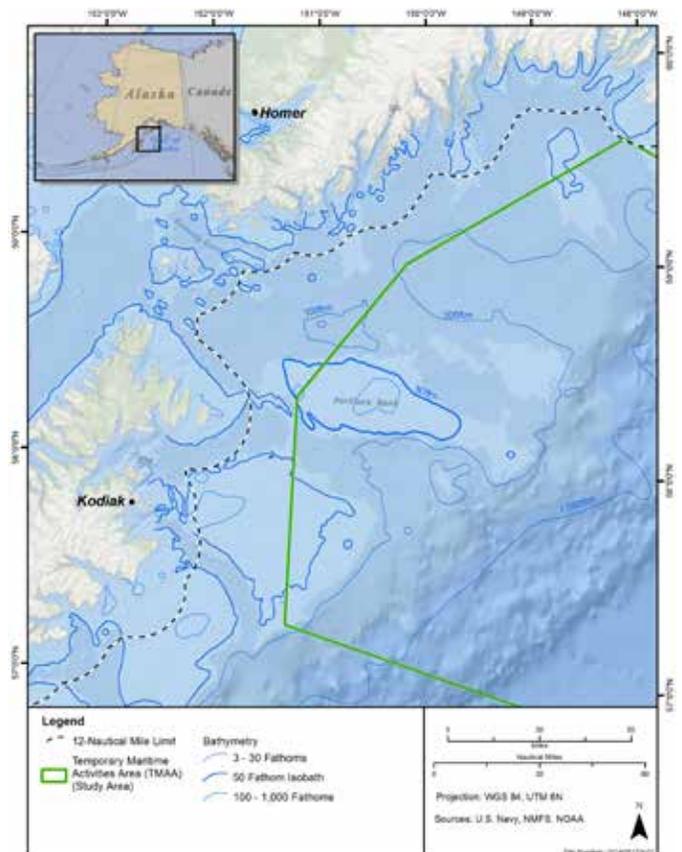
The Portlock Bank area (see Figure 4) was identified as an area of concern during consultations with Alaska Native tribes and fishermen. As a result of discussions, the Navy will not train with explosives in this area.

PROHIBITING SINKING EXERCISES IN THE TEMPORARY MARITIME ACTIVITIES AREA

The Navy will not conduct sinking exercises on decommissioned naval warships in the TMAA.



Figure 4. The Portlock Bank area.



COMMUNITY ENGAGEMENT

The Navy is committed to fulfilling its mission in an environmentally responsible manner, and ensures the long-term viability and capability of training ranges, while at the same time protecting human health and the environment.



The U.S. Pacific Fleet and Alaskan Command are committed to working with potentially affected stakeholders, coastal communities, and Alaska Native tribes to improve communication and build strong relationships. The Navy has implemented key initiatives to continue and improve stakeholder outreach by:

- » Fostering a greater understanding of the Navy mission and training requirements with stakeholders, coastal communities, and Alaska Native tribes
- » Proactively sharing information about Northern Edge exercises and providing timely updates to potentially affected stakeholders, coastal communities, and Alaska Native tribes closest to the TMAA
- » Continuing transparent community engagement throughout the environmental and exercise planning processes

