

DEPARTMENT OF DEFENSE

Department of the Navy

Record of Decision for the Hawaii-Southern California Training and Testing Final Environmental Impact Statement/Overseas Environmental Impact Statement

AGENCY: Department of the Navy, Department of Defense

ACTION: Record of Decision

SUMMARY: The United States (U.S.) Department of the Navy (Navy), after carefully weighing the strategic, operational, and environmental consequences of the Proposed Action, announces its decision to conduct training and testing (also referred to as military readiness activities) as identified in Alternative 1, of the Hawaii-Southern California Training and Testing (HSTT) Final Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS). Implementation of Alternative 1 will enable the Navy to meet military requirements to achieve the levels of operational readiness required under Title 10 United States Code (U.S.C.) Section 5062. The Navy will implement the full suite of mitigation measures detailed in Chapter 5 (Mitigation) of the HSTT Final EIS/OEIS to avoid or reduce potential impacts during training and testing under Alternative 1.

The HSTT Final EIS/OEIS supports the issuance of new authorizations of marine mammal incidental take permits under the Marine Mammal Protection Act (MMPA) and incidental takes of threatened and endangered species under the Endangered Species Act (ESA).

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A. SUPPLEMENTARY INFORMATION: Pursuant to section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, Sections 4321 et seq. of Title 42 U.S.C., Council on Environmental Quality regulations (Parts 1500–1508 of Title 40 Code of Federal Regulations [CFR]), Department of Navy regulations (Part 775 of 32 CFR), and Executive Order 12114, *Environmental Effects Abroad of Major Federal Actions*, the Navy announces its decision to implement the Navy's Preferred Alternative, Alternative 1, including the full range of mitigation measures, as described in the HSTT Final EIS/OEIS. This decision will enable Navy to support and conduct current, emerging, and future training and testing activities in the Study Area, which is made up of the in-water areas of the Pacific Ocean off the coasts of Hawaii and Southern California, on the high seas during vessel transit between these areas, in the Temporary Operating Area north and west of the Hawaii Operating Area, and at select Navy pierside and harbor locations. A detailed description of Alternative 1 is provided in Chapter 2 (Description of Proposed Action and Alternatives) of the HSTT Final EIS/OEIS. This decision will enable the Navy to meet changing military requirements to achieve the levels of operational readiness required under Title 10 U.S.C. Section 5062.

B. BACKGROUND AND ISSUES: The Navy has been conducting military readiness activities in the Study Area for well over a century and with active sonar for over 80 years. The tempo and types of training

and testing activities have fluctuated because of the introduction of new technologies, the evolving nature of international events, advances in warfighting doctrine and procedures, and changes in force structure (organization of ships, weapons, and personnel). Such developments influence the frequency, duration, intensity, and location of required training and testing activities from year to year. The HSTT Final EIS/OEIS reflects the most up-to-date compilation and number of training and testing activities deemed necessary to meet military readiness requirements into the reasonably foreseeable future.

While specific training and testing activities, activity levels, and locations have evolved to meet changing threats and incorporate improved technology, the geographic area in which the Navy has conducted training and testing activities has not appreciably changed in several decades. The vast majority of Navy training and testing activities occur in areas designated by the Navy as “range complexes.” A range complex is comprised of a set of adjacent areas of sea space, undersea space, land ranges, and overlying airspace delineated for military training and testing activities. Range complexes provide controlled and safe environments where military ship, submarine, amphibious forces, and aircraft crews can conduct training and testing in realistic conditions. The combination of undersea ranges and ocean operating areas (OPAREAs) with land ranges, safety landing fields, and nearshore amphibious landing sites is critical to realistic training and testing. A training and testing range may have electronic instrumentation including undersea hydrophones, radar, optical tracking, and communication systems. Instrumentation on the range captures important data on the effectiveness of tactics and equipment—data that provide a feedback mechanism for training and testing evaluation.

Military readiness training must be as realistic as possible to provide the experiences vital to success and survival during military operations because simulated training, even using technologically advanced simulators, cannot duplicate the complexity faced by Sailors and Marines in the real world. While simulators and synthetic training are critical elements that provide early skill repetition and enhance teamwork, there is no substitute for live training in a realistic environment. The training ranges and ocean OPAREAs provide these realistic environments, with sufficient sea and airspace vital for safety and mission success.

The Navy’s systems commands design, test, and build components, systems, and platforms to address requirements identified by the fleet. The Navy’s systems commands must test and evaluate a platform, system, or upgrade to validate whether it performs as expected and to determine whether it is operationally effective, suitable, survivable, and safe for its intended use by the fleet. The Navy uses a number of different testing methods including computer simulation and analysis, as well as at-sea testing, throughout the development of platforms and systems. Although computer simulation is a key component in the development of platforms and systems, it cannot provide information on how a platform or system will perform or whether it will be able to meet performance and other specification requirements in the environment in which it is intended to operate. Actual performance data are needed. For this reason, platforms and systems must undergo at-sea testing at some point in the development process. Thus, as with fleet training, the research and acquisition community requires access to large, relatively unrestricted ocean OPAREAs, multiple strike targets, and unique range attributes to support its testing requirements.

Purpose and Need

The Navy's purpose for its Proposed Action is to ensure that the Navy meets its mission under Title 10 Section 5062, which is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. This mission is achieved in part by conducting training and testing within the Study Area. Section 1.4 of the HSTT Final EIS/OEIS discusses the need for the Proposed Action in detail but, in general, training and testing is needed to ensure Naval forces are prepared to protect U.S. national security interests, prosecute war, and defend the nation.

The National Marine Fisheries Service (NMFS) is a cooperating agency on this EIS/OEIS, and has its own distinct purpose and need, as described fully in the HSTT Final EIS/OEIS. Briefly, NMFS's purpose is to evaluate the Navy's Proposed Action pursuant to their authority under the MMPA, and to make a determination whether to issue incidental take regulations and Letters of Authorization, including any conditions needed to meet the statutory mandates of the MMPA. The need for NMFS's action is to consider the impacts of the Navy's activities on marine mammals and meet their obligations under the MMPA. NMFS will issue its own Record of Decision documenting its decision of whether to issue authorizations for Navy's Proposed Action.

Public Involvement

The Navy published a Notice of Intent for the preparation of the HSTT EIS/OEIS in the *Federal Register* (80 FR 69952) on November 12, 2015. A corrected Notice of Intent (80 FR 75075) was issued in the *Federal Register* on December 1, 2015, correcting an error in the comment deadline date and telephone number. The Notice of Intent was also published in five newspapers in various cities on November 13, 14, and 15, 2015. The Notice of Intent and scoping notification letters were distributed at the beginning of the scoping period to 661 entities including federally recognized and non-federally recognized tribes (California), federal, state, and local elected officials, and federal, regional, and state agencies. Postcards were mailed to 1,051 recipients on the project mailing list, including individuals, nonprofit organizations, and for-profit organizations. The Notice of Intent, newspaper advertisements, scoping notification letters, and postcards provided information on the Proposed Action, methods for commenting, scoping meetings, and the project website address.

During the development of the HSTT Draft EIS/OEIS, the Navy initiated a mutual exchange of information through early and open communications with interested stakeholders. A public involvement website was established for the project, which provided various project-related materials, including fact sheets and videos. Scoping comments could be submitted via the project website or by mail. A total of 558 scoping comments were received, all of which were considered during preparation of the HSTT Draft EIS/OEIS. Examples of scoping comments included requests for the Navy to analyze a No Action Alternative that would not involve conducting training or testing activities, develop an alternative based on geographic and temporal mitigation, develop mitigation measures for marine mammals and sea turtles for acoustic and explosive stressors, develop and implement a process to assess cumulative impacts using trend data, study a wider range of alternatives (e.g., replacing training and testing activities with simulators and synthetic training), analyze potential impacts on marine species and marine habitats (e.g., potential impacts from vessel strikes and active sonar), ensure compliance with the MMPA and ESA, and evaluate water and air quality with respect to hazardous materials and air traffic patterns.

The 60-day public comment period on the HSTT Draft EIS/OEIS began with a Notice of Public Meetings (82 FR 47729) in the *Federal Register* on October 13, 2017, followed by the issuance of the Notice of Availability (82 FR 48227) on October 17, 2017. The Navy made significant efforts to notify the public to ensure maximum participation during the public comment period including using letters, postcards, press releases, project website subscriber emails, and newspaper advertisements. Stakeholder letters were sent to federally and non-federally recognized tribes (California); federal, state, and local elected officials; and, federal, state, and local governmental agencies. The letters provided a description of the Proposed Action, address of the project website, duration of the comment period, and information on the public meetings. Postcards were mailed to over 800 recipients on the project mailing list, including individuals; non-governmental organizations; community and business groups; fishing, aviation, and recreation groups; and private companies. Notice of Availability and public meetings advertisements for the HSTT Draft EIS/OEIS were placed in five newspapers located throughout the HSTT Study Area (*The San Diego Union-Tribune* [San Diego, CA], *Honolulu Star-Advertiser* [Honolulu, HI], *Hawaii Tribune-Herald* [Hilo, HI], *Maui News* [Wailuku, HI], and *The Garden Island* [Lihue, HI]). Additionally, informational videos were posted on the project website. Electronic and hard copies of the HSTT Draft EIS/OEIS were also provided to eight libraries located throughout the HSTT Study Area (San Diego, CA; Coronado, CA; Long Beach, CA; Honolulu, Oahu, HI; Kahului, Maui, HI; Lihue, Kauai, HI; Hilo, Hawaii Island, HI; and, Kailua-Kona, Hawaii Island, HI). The public comment period began on October 13, 2017 and concluded on December 12, 2017.

Furthermore, the Navy provided the public with several options for providing comments on the HSTT Draft EIS/OEIS. Five open house public meetings were held on November 6, 2017 (Honolulu, HI); November 7, 2017 (Kahului, HI); November 8, 2017 (Lihue, HI); November 9, 2017 (Hilo, HI); and November 13, 2017 (San Diego, CA). At these meetings, Navy representatives were available to provide information and answer questions posed by members of the public one-on-one. The Navy presented a formal brief that summarized the HSTT Draft EIS/OEIS and its conclusions, and a forum was provided in which the Navy received oral comments from the public. Attendees could also provide comments using paper comment forms or via an onsite digital voice recorder. Additionally, the public could provide comments electronically via the project website or by mailing letters to the address provided in all correspondence and outreach materials. Five federal agencies, 7 state agencies, 19 non-governmental organizations, 1 tribal government, and 2,160 private individuals provided comments.

Notifications for the Draft EIS/OEIS public meetings also announced that National Historic Preservation Act (NHPA) section 106 consultation was being conducted concurrent with the HSTT NEPA public involvement process. During each of the five open house public meetings, there was an information station where NHPA subject matter experts explained the section 106 process and solicited public input. In addition, and as part of the section 106 process, the Navy held in-person meetings with Native Hawaiian Organizations (NHOs) and interested parties in groups and individually, as well as telephonic meetings and email correspondence. Seven in-person consultation meetings were held on Oahu (April 30, May 22, and July 18, 2018), Maui (September 4, 2018), Kauai (September 5, 2018), and Hawaii Island (September 6, 2018 (Hilo), September 7, 2018 (Kona)). Before and after these meetings, the Navy met with various individuals privately to further discuss any concerns. During each of the seven consultation

meetings, the Navy provided a toll-free phone number so that those unable to attend the meetings in person could still participate. Several stakeholders participated in the seven meetings via telephone.

In response to the comments received through the public comment process, as well as through consultations with regulators, the Navy made adjustments to its Proposed Action that are reflected in the HSTT Final EIS/OEIS. Specifically, changes were made to the tempo of certain proposed activities, and additional mitigation measures were included. Some of these changes reflect the Navy's balancing of training and testing needs against protection for specific marine species. When possible, the Navy expanded mitigation measures to ensure additional protection to marine species when those mitigation measures were reasonable and practical to implement.

The Notice of Availability for the HSTT Final EIS/OEIS was published in the *Federal Register* on October 26, 2018 (83 FR 54105). The Navy made significant efforts to notify the public of the publication of the HSTT Final EIS/OEIS, including using letters, postcards, press releases, project website subscriber emails, and newspaper advertisements. Approximately 580 notification letters were sent to federally recognized tribes and non-federally recognized tribes (California); federal, state, and local elected officials; and federal, state, and local governmental agencies. The letters provided a description of the Proposed Action, address of the project website, and other project information. Postcards were mailed to approximately 3,000 recipients on the project mailing list, including individuals; non-governmental organizations; community and business groups; fishing, aviation, and recreation groups; and private companies. Concurrent with the publication in the *Federal Register*, notifications of the availability of the HSTT Final EIS/OEIS were published in the same five newspapers listed above. The HSTT Final EIS/OEIS was also made available on the project website and at the same eight public libraries listed above throughout cities in Hawaii and Southern California. Six letters were received on the HSTT Final EIS/OEIS during the 30-day wait period that ended on November 26, 2018.

Alternatives Considered

The identification, consideration, and analysis of alternatives are critical components of the NEPA process and contribute to the goal of informed decision-making. The Navy developed the alternatives considered in the HSTT Final EIS/OEIS after careful assessment by subject matter experts, including military commands that utilize the ranges, military range management professionals, Navy environmental managers and scientists, and (with respect to the mitigation measures that are incorporated into each action alternative) in consultation with NMFS. The Navy also used Department of Defense and Navy policy and historical data in developing alternatives.

The Navy's anticipated level of training and testing activities evolves and fluctuates over time. Through the collection of several years' worth of classified data regarding the number of hull-mounted mid-frequency active sonar hours used to meet anti-submarine warfare training and testing requirements, the Navy has an increased understanding of the usage of sonar, the competing training and testing requirements, and outside global realities that may cause sonar usage to fluctuate. These data allow for a more accurate projection of the number of active sonar hours required to meet anti-submarine warfare training and testing requirements into the reasonably foreseeable future. In light of this information, the Navy was able to better formulate a range of reasonable alternatives that meet Navy training and testing requirements.

In the HSTT Final EIS/OEIS, the Navy assessed military readiness activities that could potentially impact human and natural resources, especially marine mammals, sea turtles, and other marine resources. The range of alternatives includes a No Action Alternative and other, reasonable alternatives for achieving the purpose and need. Direct, indirect, cumulative, short-term, long-term, irreversible, and irretrievable impacts were analyzed. Data sets used for analysis were considered across the full spectrum of Navy training and testing for the foreseeable future. For the purposes of analysis and presentation within the HSTT Final EIS/OEIS, data were organized and evaluated in 1-year and 5-year increments. For the purposes of analysis and presentation within the HSTT Final EIS/OEIS, data were organized and evaluated in 1-year and 5-year increments, but the Proposed Action is framed as continuing into the reasonably foreseeable future. Based upon current knowledge and the proposed training and testing, continuation of the Proposed Action into the reasonably foreseeable future (beyond 2023) would not change the Navy's direct and indirect impact conclusions across other time frames (ex., 2, 7, 10 years).

Three alternatives are analyzed in the HSTT Final EIS/OEIS.

- **No Action Alternative.** The No Action Alternative considers that the Proposed Action would not take place (i.e., the proposed training and testing would not occur in the HSTT Study Area). For NMFS, denial of an application for an incidental take authorization constitutes the NMFS No Action Alternative, which is consistent with NMFS's statutory obligation under the MMPA to grant or deny requests for take incidental to specified activities. If NMFS were to deny the Navy's application, the Navy would not be authorized to incidentally take marine mammals in the HSTT Study Area and, under the No Action Alternative, the Navy would not conduct the proposed training and testing activities in the HSTT Study Area. While the No Action Alternative is the environmentally preferable alternative, it fails to meet the Navy's Purpose and Need for the Proposed Action.
- **Alternative 1.** Alternative 1 (Preferred Alternative) considers fluctuations in training cycles, testing requirements, and deployment schedules that do not follow a traditional annual calendar but instead are influenced by global demands and other external factors. This alternative reflects a representative year of training to account for the natural fluctuation of training cycles and deployment schedules that generally limit the maximum level of training from occurring year after year in any 5-year period. For example, Alternative 1 considers that a varying number of Composite Training Unit Exercises (one type of major exercise) would occur each year, with no more than 12 in any given 5-year period. Alternative 1 also includes an annual level of testing that reflects the fluctuations in testing programs by recognizing that the maximum level of testing for any individual program will not be conducted each year. This alternative contains a more realistic annual representation of activities, but includes years of a higher maximum amount of testing to account for these fluctuations. This alternative would not include the contingency for augmenting some weapon system tests and presumes a typical level of readiness requirements. Alternative 1 results in lower impacts on marine species compared to Alternative 2. The Navy's entire suite of mitigation measures, including procedural mitigation and geographic mitigation areas, are incorporated into both action alternatives and would be implemented under Alternative 1.

- **Alternative 2.** Alternative 2 includes a higher number of training exercises and sonar hours than Alternative 1. This alternative reflects the maximum number of training activities that could occur within a given year and assumes that the maximum level of activity would occur every year over any 5-year period. Alternative 2 includes the testing of new platforms, systems, and related equipment. This alternative assumes that the maximum annual testing efforts predicted for each individual system or program would occur concurrently in any given year. This alternative includes the contingency for augmenting some weapon systems tests in response to potential increased world conflicts and changing Navy leadership priorities as the result of a direct challenge from a naval opponent that possesses near-peer capabilities. The Navy's entire suite of mitigation measures, including procedural mitigation and geographic mitigation areas, would also be implemented under Alternative 2.

The Navy thoroughly considered and then eliminated from further consideration several alternatives that did not meet the purpose of and need for the Proposed Action, as summarized below.

- **Alternative Training and Testing Locations.** The Study Area, and the range complexes and testing ranges it contains, has attributes necessary to support effective training and testing. There are no other potential locations in the Pacific where the land ranges, OPAREAs, undersea terrain and ranges, and military airspace combine to provide the venues necessary for the training and testing realism and effectiveness required to train and certify naval forces and systems ready for combat operations.
- **Simulated Training and Testing Only.** The Navy currently uses simulation for training and testing whenever possible; however, its use cannot replace live training or testing.
- **Training and Testing Without the Use of Active Sonar.** Active sonar is needed to find and counter newer generation submarines around the world, which are growing in number, as well as torpedoes and underwater mines, which are true threats to global commerce, national security, and the safety of military personnel. As a result, training and testing with active sonar is a top priority for the Navy, essential to ensuring U.S. national security.
- **Alternatives Including Geographic Mitigation Measures within the Study Area.** The Navy considered developing an alternative based solely on geographic mitigation that would impose time/area restrictions on an expanded list of specific areas in the HSTT Study Area associated with the presence of species. Further, NEPA requires application of mitigation measures to the alternatives "when not already included in the proposed action or alternatives" (40 CFR 1502.14). The Navy's alternatives were developed in order to satisfy the purpose and need related to fulfilling its Title 10 requirements. Mitigation measures, which are incorporated into the Proposed Action under both action alternatives, were developed in close consultation with NMFS, and the Navy would implement its full suite of mitigation measures (including geographic mitigation areas that are biologically supported and practical to implement) under both action alternatives as described in Chapter 5 (Mitigation). Therefore, the mitigation would be implemented regardless of which action alternative is selected.

Corrections subsequent to the HSTT Final EIS/OEIS Publication

Following the public release of the HSTT Final EIS/OEIS, minor errors were discovered and noted below. Correction of these does not result in changes to the impact analysis as they were simply errors in how the information was presented in the Final EIS/OEIS.

- **Figure 5.4-1.** In Chapter 5, the figure that illustrates the seafloor resource mitigation areas around Hawaii incorrectly shows the extent of the live hardbottom habitat. A corrected figure is available on the project website at: <https://www.hstteis.com/Documents/2018-Hawaii-Southern-California-Training-and-Testing-Final-EIS-OEIS/Final-EIS-OEIS#7120106-corrections>.
- **Appendix A.** In Appendix A (Navy Activity Descriptions), the description for the activity Surface Ship Object Detection (A.2.8.13) incorrectly presents the activity duration as “Up to 15 hours.” The actual duration of this activity is 0.5 hours.

Environmental Impacts

The Navy’s environmental analysis addressed the potential environmental impacts of implementing Alternative 1 and found that there will be negligible impacts on the following resources: sediments and water quality, air quality, public health and safety, cultural resources, and socioeconomic resources. The discussion below summarizes the remaining environmental impacts associated with implementing Alternative 1.

Vegetation. The use of explosives, vessels, in-water devices, military expended materials, seafloor devices, and pile driving could impact some types of marine vegetation, specifically marine algae and flowering plants, by destroying individuals or damaging parts of individuals. While there may be adverse impacts on the individual level, no population-level impacts are expected. There are no species of vegetation listed as endangered, threatened, candidate, or proposed under the ESA in the HSTT Study Area.

Invertebrates. Sonar and other transducers, air guns, pile driving, vessel noise, and weapons noise associated with the Proposed Action are not expected to cause more than a short-term behavioral disturbance or startle reaction to some marine invertebrates capable of detecting nearby sound (e.g., cephalopods and crustaceans). Masking from acoustic sources could affect behaviors such as larvae settlement, communication, predator avoidance, and foraging in mollusc, crustacean, and coral species, but is unlikely to impact survival, growth, recruitment, or reproduction of marine invertebrate populations or subpopulations.

In-water explosives, and physical disturbance and strike from vessels and in-water devices, military expended materials, pile driving, and seafloor devices may result in behavioral disturbance, physiological impacts, or mortality to some marine invertebrates. Only the use of explosives and military expended materials has the potential to result in physical impacts to the ESA-listed marine invertebrate species found in the Study Area (white abalone and black abalone); all other stressors are either not expected to have physical impacts on abalone or mitigation measures will be implemented to avoid potential impacts. In-water electromagnetic devices may cause temporary disruptions to navigation and orientation for susceptible invertebrates (e.g., some species of crustaceans, molluscs, and echinoderms).

Overall, the impacts are not expected to result in detectable changes to the growth, survival, recruitment, or reproduction of invertebrates, and are not expected to result in population-level impacts.

Pursuant to the ESA, the Navy concluded that training and testing activities with explosives, military expended material, decelerators/parachutes, and secondary stressors may affect, but are not likely to adversely affect ESA-listed invertebrate species in the HSTT Study Area, including black abalone (*Haliotis cracherodii*) and white abalone (*Haliotis sorenseni*). Other stressors will have no effect on ESA-listed invertebrates. The Navy consulted with NMFS, as required by section 7(a)(2) of the ESA. NMFS determined that the Navy's Proposed Action for training and testing activities with military expended materials may affect, but are not likely to adversely affect designated abalone critical habitat within the Study Area. Other stressors will have no effect on designated critical habitat for abalone.

Habitats. The greatest potential impact to abiotic substrates would be from in-water explosives. However, most detonations will occur at or near the surface, and those that do occur on the seafloor will be located in primarily soft-bottom habitat. Changes to marine substrates could include localized disturbance of the seafloor and cratering of soft bottom sediments. Any impacts on soft bottom habitats will be short-term and impacts on the small portion of existing hard bottom, though unlikely, will be long-term. Activities as proposed will not impact the ability of marine substrates to serve their function as habitat.

Fishes. Sonar and other transducers, air guns, pile driving, vessel noise, aircraft noise, and weapons noise could result in impacts on fishes in the Study Area. Some sonars and other transducers, vessel noise, and weapons noise could result in masking, physiological stress, or behavioral reactions. Additionally, some sonar and transducers could also result in hearing loss. Aircraft noise will not likely result in impacts other than brief, mild behavioral responses in fishes that are close to the surface. Air guns and pile driving have the potential to result in the same effects in addition to mortality or injury. Although most exposures will be temporary and infrequent, more severe impacts such as injury could lead to permanent or long-term consequences for individuals. Overall, long-term consequences for fish populations are not expected for any species of fish. Explosives may result in behavioral disturbance, physiological stress, hearing loss, injury, or mortality of some fish close to the source. During development of the HSTT Final EIS/OEIS, injury criteria for explosives were revised based on best available information to more accurately reflect the risk to fishes. However, this revision did not change the conclusions of the analysis. More information regarding this revision is found in the Final HSTT EIS/OEIS in Section 3.6.3.2.2.1 (Methods for Analyzing Impacts from Explosives). In-water electromagnetic devices may elicit brief behavioral or physiological stress responses only in those exposed fishes with sensitivities to the electromagnetic spectrum. The use of vessels and in-water devices near the surface may result in injury or mortality to some fish that are large or slow-moving (e.g., sturgeon, ocean sunfish, whale sharks, basking sharks, and manta rays). Military expended materials and seafloor devices are not expected to cause more than a short-term behavioral disturbance or startle reaction to fish. Overall, impacts from all activities listed above are not expected to result in detectable changes to their survival, growth, recruitment, or reproduction, and are not expected to result in population-level impacts.

Pursuant to the ESA, the Navy determined that training and testing explosive activities are likely to adversely affect ESA-listed fish in the HSTT Study Area, including the Eastern Pacific Distinct Population Segment (DPS) scalloped hammerhead shark (*Sphyrna lewini*), the Southern California DPS steelhead (*Oncorhynchus mykiss*), giant manta ray (*Manta birostris*), and oceanic whitetip shark (*Carcharhinus longimanus*). Other stressors will either have no effect or are not likely to adversely affect ESA-listed fish. The Navy consulted with NMFS, as required by section 7(a)(2) of the ESA. NMFS determined that the Navy's Proposed Action for training and testing activities will have no effect on designated critical habitat for steelhead.

Marine Mammals. The Navy performed a quantitative analysis to estimate the number of marine mammals that could potentially be affected by acoustic stressors or explosives used during Navy training and testing activities, as described in the technical report *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing*. The use of sonar and other transducers, air guns, and pile driving may cause temporary or permanent hearing threshold shift, auditory masking, physiological stress, or behavioral responses in certain marine mammals, which equates to either Level A (which includes permanent hearing threshold shift) or Level B (which includes behavioral disruption and temporary hearing threshold shift) harassment under the MMPA. The vast majority of these estimated impacts are temporary and intermittent behavioral disturbance and the associated stress.

The use of explosives may cause temporary or permanent hearing threshold shift, auditory masking, physiological stress, or behavioral responses in certain marine mammals, equivalent to Level A (which includes permanent hearing threshold shift), Level B harassment (which includes behavioral disruption and temporary hearing threshold shift), or mortality under the MMPA. The quantitative analysis estimates two mortalities annually for short-beaked common dolphin, and one mortality annually for California sea lion from explosives used during training and testing activities. Vessel strike could result in Level A harassment or mortality under the MMPA, specifically to certain large whale species. Although few individual marine mammals may experience long-term impacts such as potential injury and mortality, population-level impacts are not expected.

Weapons noise, vessel noise, aircraft noise, in-water electromagnetic devices, high-energy lasers, in-water devices, seafloor devices, and military expended materials are expected to result in minor and temporary behavioral reactions that do not rise to the level of a take under the MMPA. Impacts are expected to be short-term and not result in significant changes in behavior, growth, survival, annual reproductive success, lifetime reproductive success, or species recruitment.

Pursuant to the ESA, the Navy determined that sonar and other transducers, explosives, and vessel strikes (applicable to four of 10 species) are likely to adversely affect ESA-listed marine mammals in the HSTT Study Area, including the blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), western North Pacific DPS gray whale (*Eschrichtius robustus*), Central America and Mexico DPS humpback whale (*Megaptera novaeangliae*), sei whale (*Balaenoptera borealis*), sperm whale (*Physeter macrocephalus*), main Hawaiian Islands insular false killer whale (*Pseudorca crassidens*), Guadalupe fur seal (*Arctocephalus townsendi*), and Hawaiian monk seal (*Neomonachus schauinslandi*). Vessel strike

was only applicable for blue whale, fin whale, humpback whale, and sperm whale. Other stressors will either have no effect or are not likely to adversely affect ESA-listed marine mammals.

The Navy consulted with NMFS, as required by section 7(a)(2) of the ESA. NMFS determined that the Navy's Proposed Action for training and testing with explosives and seafloor devices are not likely to destroy or adversely modify the Hawaiian monk seal critical habitat. Other stressors will have no effect on critical habitat for the Hawaiian monk seal. NMFS determined that the Navy's Proposed Action for training and testing with sonar and other transducers, vessel noise, explosives, vessels and in-water devices, military expended material are not likely to destroy or adversely modify the main Hawaiian Islands insular false killer whale critical habitat. Other stressors will have no effect on critical habitat for the main Hawaiian Islands insular false killer whale.

Reptiles. The Navy performed a quantitative analysis to estimate the number of sea turtles that could potentially be affected by acoustic stressors or explosives used during Navy training and testing activities, as described in the technical report *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing*. A quantitative analysis of impacts to sea snakes was not conducted (sea snakes rarely occur in the Study Area and few, if any, impacts are anticipated), but sea snake impacts from acoustic stressors and explosives are assumed to be similar to impacts to sea turtles. The use of sonar and other transducers may result in exposures that cause temporary threshold shift (TTS), and minor and temporary behavioral reactions to sea turtles; however, most sonar and other active acoustic sources used during training and testing use frequency ranges that are higher than the estimated hearing range of sea turtles. The use of explosives may result in behavioral effects, permanent threshold shift (PTS), TTS, or injury.

Vessel strike could result in mortality or injury of sea turtles. Although few individual sea turtles may experience long-term impacts such as potential injury and mortality, population-level impacts are not expected.

Pursuant to the ESA, the Navy determined that explosives and vessel strikes are likely to adversely affect ESA-listed sea turtles in the HSTT Study Area, including Central North Pacific DPS green sea turtle (*Chelonia mydas*), East Pacific DPS green sea turtles (vessel strike only), hawksbill sea turtle (*Eretmochelys imbricata*), leatherback turtle (*Dermochelys coriacea*), North Pacific DPS loggerhead sea turtle (*Caretta caretta*), and Olive ridley turtle (*Lepidochelys olivacea*). There would be no effects from explosives to the Eastern North Pacific green sea turtle. Other stressors will either have no effect or are not likely to adversely affect ESA listed sea turtles.

The Navy consulted with NMFS, as required by section 7(a)(2) of the ESA. There is no designated sea turtle critical habitat within the HSTT Study Area, but leatherback sea turtle critical habitat has been designated near the Study Area, and was considered in the analysis. There is no effect on leatherback sea turtle critical habitat.

Birds. The use of sonar and other transducers may result in a behavioral disturbance to diving birds. Physiological impacts, such as hearing loss, will likely only occur if a bird were close to an intense sound source for an extended period of time, which is highly unlikely. The use of explosives may result in behavioral disturbance or physiological impacts. Aircraft strike could result in mortality or injury of birds.

Although few individual birds may experience long-term impacts such as potential injury and mortality, population-level impacts are not expected. Seabirds may be exposed to air guns, pile driving, weapons noise, vessel noise, aircraft noise, in-water and in-air electromagnetic devices, high-energy lasers, in-water devices, military expended materials, and seafloor devices which may result in only minor and temporary behavioral reactions. Impacts are expected to be short-term and will not result in significant changes in behavior, growth, survival, annual reproductive success, lifetime reproductive success, or species recruitment.

Pursuant to the ESA, the Navy concluded that activities may affect, but are not likely to adversely affect ESA-listed bird species in the HSTT Study Area, including California least tern (*Sternula antillarum browni*), Hawaiian petrel (*Pterodroma sandwichensis*), short-tailed albatross (*Phoebastria albatrus*), marbled murrelet (*Brachyramphus marmoratus*), Newell's shearwater (*Puffinus auricularis newelli*), and band-rumped storm-petrel (*Oceanodroma hydrobates castro*).

Recent Scientific Information

The scientific community continues to conduct research and generate new data in an effort to expand and improve the understanding of the marine environment. The Navy is a strong advocate for and sponsor of marine research and is vigilant in its review of new information that may inform the analyses or affect the conclusions. The Navy has identified additional references, many of them published within the last year, that are relevant to the analyses in the HSTT Final EIS/OEIS. The majority of these references are peer-reviewed journal articles and present the results of ongoing and new research on the topics of effects of vessel noise, impulsive noise, construction noise, and sonar on marine mammals; disturbance models for marine mammals; auditory impacts to marine mammals; and behavioral responses of fish species, as well as other topics. These new references do not change the impacts analyses or conclusions. The Navy will continue to monitor and review the results of new research and evaluate how those results apply to the Navy's assessment of marine resources. Due to their relevance to the analysis of the Proposed Action, however, several of these studies are described below.

Nachtigall et al. (2018) and Finneran (2018) describe the measurements of hearing sensitivity of multiple odontocete species (bottlenose dolphin, harbor porpoise, beluga, and false killer whale) when a relatively loud sound was preceded by a warning sound. These captive animals were shown to reduce hearing sensitivity when warned of an impending intense sound. Based on these experimental observations of captive animals, the authors suggest that wild animals may dampen their hearing during prolonged exposures or if conditioned to anticipate intense sounds. Finneran (2018) recommends further investigation of the mechanisms of hearing sensitivity reduction in order to understand the implications for interpretation of some existing TTS data obtained from captive animals, notably for considering TTS due to short duration, unpredictable exposures. No modification of analysis of auditory impacts is currently suggested, as the Phase III auditory impact thresholds are based on best available data for both impulsive and non-impulsive exposures to marine mammals.

Several publications described models developed to examine the long-term effects of environmental or anthropogenic disturbance of foraging on various life stages of selected species [sperm whale – Farmer et al. (2018), California sea lions – McHuron et al. (2018), and blue whale – Pirodda et al. (2018)]. These models, taken into consideration with similar models described in the HSTT Final EIS/OEIS, will continue

to add to refinement of approaches to the population consequences of disturbance framework. Such models also help identify what data inputs require further investigation. As described in the HSTT Final EIS/OEIS, many of the inputs required by such models are not yet known for acoustic and explosive impacts. The Navy will continue to support long-term monitoring efforts and data gathering on Navy ranges and subsequently continue to assess the applicability of population consequences models to its analysis.

Additionally, Kastelein et al. (2018) exposed captive harbor porpoises to mid-frequency sonar to investigate reactions at varying duty cycles. Neither porpoise responded to lower duty cycle and one of the porpoises responded to the high duty cycle at several levels; although both animals jumped more at the high duty cycle and highest received level. The investigators also indicated that there was no habituation or sensitization across the exposure periods. These received levels are similar to previous levels at which harbor porpoises have responded to sonar and do not change the current conclusions.

Mitigation Measures

The Navy worked collaboratively with the appropriate regulatory agencies through the consultation and permitting processes to develop and finalize the mitigation measures included in the HSTT Final EIS/OEIS, and accepted several additional mitigation measures requested by those agencies. The Navy's mitigation measures are also identified in the NMFS Biological Opinion issued on December 10, 2018 and the NMFS Final Rule and Letters of Authorization (LOAs) scheduled to be issued on December 21, 2018 (see the section on Agency Consultation and Coordination of this Record of Decision for further details).

In its mitigation measures, Navy has taken all practicable means to avoid or minimize environmental harm. The Navy's mitigation measures are organized into two categories, as described below.

- **Procedural Mitigation.** The Navy will implement procedural mitigation measures to avoid or reduce potential impacts on marine mammals, sea turtles, birds, fish, vegetation, invertebrates, and cultural resources. Procedural mitigation measures will be implemented during applicable activities involving active sonar, air guns, pile driving, weapons firing, explosives, non-explosive practice munitions, vessel movements, and towed in-water devices.

In addition, the Navy developed several new or enhanced procedural mitigation measures including: (1) adding a requirement to survey for marine mammals and ESA-listed species after the completion of explosive activities in the vicinity of where detonations occurred (when practical); (2) requiring additional platforms already participating in explosive activities to support observing for applicable biological resources before, during, and after the activity; (3) increasing the size of the mitigation zones for several acoustic or explosive activities; and (4) developing new mitigation measures for air guns.

- **Mitigation Areas.** The Navy will implement mitigation measures within mitigation areas to avoid or reduce potential impacts on marine mammals, shallow-water coral reefs, precious coral beds, live hard bottom, artificial reefs, and shipwrecks. Depending on the area, mitigation measures will be implemented year-round or seasonally during applicable activities involving active sonar, explosives, and physical disturbance and strike stressors.

In addition, the Navy developed several new or enhanced mitigation areas for the Proposed Action, including: (1) developing a new mitigation area known as the Hawaii Island Mitigation Area to avoid or reduce potential impacts from mid-frequency active sonar and explosives on marine mammals in the area; (2) expanding the boundaries and season of the existing Humpback Whale Cautionary Area (now referred to as the 4-Islands Region Mitigation Area) to enhance protection for humpback whales, Main Hawaiian Islands insular false killer whales, numerous small and resident marine mammal populations (e.g., bottlenose dolphins, pantropical spotted dolphins, spinner dolphins), and Hawaiian monk seals; (3) developing the San Diego Arc, San Nicolas Island, and Santa Monica/Long Beach Mitigation Areas to avoid or reduce potential impacts from mid-frequency active sonar and explosives on blue whales; (4) developing the Santa Barbara Island Mitigation Area to avoid or reduce potential impacts from mid-frequency active sonar and explosives on numerous marine mammal species in the area; and (5) developing the Blue Whale, Gray Whale, and Fin Whale Awareness Notification Messages Areas for the Southern California portion of the Study Area and the Humpback Whale Awareness Notification Message Area for the Hawaii Range Complex to avoid or reduce potential impacts from vessel strikes and training and testing activities on large whales.

Monitoring, Research, and Reporting

Through its marine species research and monitoring programs, the Navy is one of the nation's largest sponsors of scientific research on and monitoring of marine species. The Navy will continue its Integrated Comprehensive Monitoring Program, which serves as the overarching framework for coordinating marine species monitoring efforts and priorities pursuant to MMPA and ESA requirements.

The Navy will also continue submitting annual training and testing activity reports and incident reports. In its annual training and testing activity reports, the Navy will describe the level of training and testing conducted during the reporting period (e.g., the location and total hours and counts of active sonar hours and in-water explosives used). For major training exercises, the reports will include information on each individual marine mammal sighting related to mitigation implementation. If they occur, the Navy will report incidents involving biological and cultural resources, such as bird aircraft strikes, marine mammal and sea turtle vessel strikes, observed injuries or mortalities to marine mammals or sea turtles during training or testing, observed injuries or mortalities to marine mammals or ESA-listed species after the use of explosives, and observed impacts to submerged historic properties.

The Navy and NMFS will use the information contained within monitoring, research, activity, and incident reports when evaluating the effectiveness and practicality of mitigation and determining if adaptive adjustments to mitigation measures may be appropriate. These reports also facilitate a better understanding of the biological and cultural resources that inhabit the Study Area and the potential impacts of military readiness activities on those resources.

Additionally, in cooperation with the Hawaii State Historic Preservation Officer (SHPO), the Navy will provide SHPO an annual summary table by December 31 indicating whether amphibious landing activities have occurred for each installation location. The report will also include whether any in-water inadvertent discoveries have been made.

Adaptive Management

The Navy's adaptive management process and reporting requirements serve as the basis for evaluating performance and compliance, and involve technical review meetings and ongoing discussions between the Navy, NMFS, the Marine Mammal Commission, and other experts in the scientific community. The Navy hosts an annual adaptive management review meeting where the Navy and NMFS jointly consider the prior year's monitoring goals, monitoring results, scientific advances, and compliance monitoring structure to determine if modifications are warranted to address program goals more effectively. Potential modifications to the Navy's compliance monitoring structure or in how the Navy implements mitigation measures based on national security concerns, evolving readiness requirements, or other factors (e.g., significant changes in the best available science) will be evaluated through adaptive management or the appropriate consultations. The Navy will also use the adaptive management process to provide information to NMFS about certain topics, such as technological developments. For example, the Navy will provide information to NMFS about the status and findings of Navy-funded thermal detection studies and any associated practicality assessments at the annual adaptive management meetings.

Agency Consultation and Coordination

NMFS served as a cooperating agency throughout the EIS/OEIS process pursuant to 40 CFR 1501.6 because of its expertise and regulatory authority over certain marine resources. Additionally, NMFS intends to use this document as its NEPA documentation in support of its rule-making process under the MMPA. Furthermore, the Navy consulted and coordinated with other federal and state agencies, including U.S. Fish and Wildlife Service (USFWS), the Hawaii and California State Historic Preservation Officers, and Coastal Zone Management Act administrators within the Study Area in conjunction with actions addressed in the HSTT Final EIS/OEIS. A summary of the results from each consultation and coordination process is included below:

- **Marine Mammal Protection Act.** The Navy submitted an application for incidental take authorizations to NMFS on September 13, 2017 for stressors associated with certain training and testing activities (the use of sonar and other transducers, explosives, and vessel movement), as described under the Preferred Alternative (Alternative 1). On October 12, 2017, a revised request was submitted to NMFS that included (1) corrections to errors, typos, and transcription mistakes; and (2) the addition of training and testing requirements that were not identified in time to incorporate into the initial application. The Final Rule is scheduled to be published on December 21, 2018, and NMFS has indicated their intent is to conclude that the Navy's training and testing activities will have a negligible impact on the marine mammal species and stocks present in the HSTT Study Area and, when considering implementation of the mitigation measures described in the HSTT Final EIS/OEIS, the Navy will affect the least practicable adverse impact on marine mammal species or stocks and their habitat. On December 21, 2018, NMFS is also scheduled to issue two LOAs, one each for Navy training activities and testing activities. These LOAs authorize the taking of marine mammals incidental to Navy training and testing activities conducted in the HSTT Study area pursuant to Section 101 (a)(5)(A) of the MMPA. The LOAs specify the type and amount of incidental take that is authorized, by species, as well as the

Navy's mitigation, monitoring, and reporting requirements. NMFS intends to coordinate the LOAs with the Incidental Take Statements the Navy anticipates to receive for endangered marine mammals pursuant to section 7 of the ESA.

- **Endangered Species Act.** The Navy requested initiation of formal consultation with NMFS (Headquarters, Office of Protected Resources) on ESA-listed species in a letter on January 5, 2018. Species addressed were the blue whale, fin whale, western North Pacific DPS gray whale, Mexico and Central America DPS humpback whale, sei whale, sperm whale, main Hawaiian Islands insular false killer whale, Guadalupe fur seal, Hawaiian monk seal, green turtle, hawksbill turtle, leatherback turtle, loggerhead turtle, olive ridley turtle, black abalone, white abalone, scalloped hammerhead shark and steelhead.

On August 23, 2018, NMFS published a final rule to designate critical habitat in Hawaii for the Main Hawaiian Islands insular false killer whale (83 FR 35062). On October 26, 2018, the Navy provided a supplemental consultation package that included the Navy's assessment of impacts to insular false killer whale critical habitat and ESA conclusions, as well as supplemental information regarding HSTT activities and the potential for effects to Hawaiian monk seal critical habitat.

NMFS issued their Biological Opinion on December 10, 2018 and concluded that any adverse effects to ESA-listed species, as described above, are not likely to jeopardize the continued existence of threatened or endangered species. NMFS also concluded that the Proposed Action is not likely to result in destruction or adverse modification of designated critical habitat for black abalone, Hawaiian monk seals, or Main Hawaiian Islands insular false killer whales. In addition to the Biological Opinion, NMFS will issue two Incidental Take Statements by December 21, 2018, one each for Navy training activities and testing activities. NMFS intends to coordinate the two Incidental Take Statements with the issuance of LOAs the Navy is scheduled to receive for the incidental take of marine mammals pursuant to section 101(a) (5) of the MMPA. The Incidental Take Statements will exempt Navy actions as described in the EIS/OEIS from the prohibitions set forth in section 9 of the ESA.

The Navy requested informal consultation with the Honolulu, Hawaii and Carlsbad, California USFWS offices in letters dated April 5, 2018 and March 15, 2018, respectively. The Navy requested consultation on the effects of its training and testing activities on the ESA-listed Hawaii Distinct Population Segment band-rumped storm-petrel, Hawaiian petrel, Newell's shearwater, short-tailed albatross, California least tern, and marbled murrelet. In letters dated May 10, 2018 and September 14, 2018, USFWS Hawaii and California offices concurred with the Navy's determinations that training and testing activities may affect but are not likely to adversely affect these ESA-listed bird species. The Hawaii office also concurred with the Navy's determination that amphibious landing activities at the Pacific Missile Range Facility may affect but are not likely to adversely affect the green, hawksbill, and olive ridley sea turtles.

- **Magnuson-Stevens Fishery Conservation and Management Act.** On April 17, 2018, the Navy submitted Essential Fish Habitat (EFH) packages to NMFS Pacific Island and West Coast Region Offices to initiate supplemental EFH consultation. For the Hawaii Range Complex, supplemental

EFH consultation with the NMFS Pacific Island Regional Office focused on new activities since the 2013 EFH consultation and any new applicable science not already considered by the Navy. The NMFS Pacific Island Regional Office letter of October 11, 2018 provided the NMFS response to the Navy's consultation request and included a revised (from the original 2013 consultation) conservation recommendation to avoid "continuous sounds (e.g., vessel movement and sonar) around coral reefs and active fish spawning aggregations." On October 16, 2018 the Navy provided a response with the Navy's reasons for not following the recommendation, including the scientific justification for disagreeing with NMFS over the anticipated effects of the action and the measures needed to avoid, minimize, mitigate, or offset such effects.

For the Southern California portion of the HSTT Study Area, supplemental EFH consultation with the NMFS West Coast Region Office was specific to the changes in seafloor devices and underwater detonation and changes in "bin" definitions. On October 3, 2018, consultation with the NMFS West Coast Region Office was concluded. NMFS West Coast Region Office agreed that the Navy's proposed conservation measures are sufficient to avoid, minimize, or offset impacts to EFH and did not provide additional EFH conservation recommendations.

- **National Marine Sanctuaries Act.** There are two national marine sanctuaries managed by the Office of National Marine Sanctuaries within the Study Area; the Hawaiian Islands Humpback Whale National Marine Sanctuary, and Channel Islands National Marine Sanctuary. Proposed military activities are consistent with activities described in the 1997 Final EIS/Management Plan for the Hawaiian Islands Humpback Whale National Marine Sanctuary and in the 2008 Final Channel Islands National Marine Sanctuary Management Plan/Final Environmental Impact Statement and final regulations. The military activities currently proposed continue the activities previously analyzed in the Navy's 2013 HSTT Final EIS/OEIS and for which the Office of National Marine Sanctuaries found no consultation was required in a letter dated August 16, 2013. The activities have not been modified in a manner that makes the impacts significantly greater or significantly different than those considered in the 2013 HSTT Final EIS/OEIS; therefore, consultation is not required.
- **Coastal Zone Management Act.** The Navy completed the CZMA Federal Consistency process for the HSTT proposed activities in Hawaii and California.

For Hawaii, based on an evaluation of the effects of the Proposed Action discussed in the HSTT Final EIS/OEIS and the enforceable policies of Hawaii's Coastal Zone Management (CZM) Program, and pursuant to 15 CFR section 930.39, the Navy submitted a consistency determination to the Hawaii Office of Planning in April 2018. The State of Hawaii's Office of Planning objected in part based on its determination that the proposed use of explosives is in conflict with Hawaii Revised Statutes, Chapter 195D, Conservation of Aquatic Life, Wildlife, and Land Plants; and Hawaii Administrative Rules, Chapter 13-124, Indigenous Wildlife, Endangered and Threatened Wildlife, and Introduced Wild Birds. Hawaii's Office of Planning offered two conditional concurrences to the Navy's consistency determination. After considering Hawaii's position and careful review of the underlying law and regulations, the Navy determined that it is consistent to the maximum extent practicable with Hawaii's enforceable policies under the

Hawaii CZM Program. In compliance with 15 CFR section 930.43(e), the Navy provided notification of its intent to proceed over Hawaii's Office of Planning's objection to the Navy's consistency determination.

For California, based on an evaluation of the effects of the Proposed Action discussed in the HSTT Final EIS/OEIS and the enforceable policies of the California's Coastal Zone Management Plan, and pursuant to 15 CFR section 930.39, the Navy submitted a consistency determination to the California Coastal Commission (CCC) in February 2018. The CCC objected to the Navy's consistency determination based on its determination that the activities as proposed were not consistent to the maximum extent practicable with the marine resources protection policy (Section 30230) of the California Coastal Act, which is one of the enforceable policies under the California Coastal Management Program.

In August 2018, the Navy replied to the CCC, responding to each specific objection raised in the Commission's July 2018 findings letter. The Navy continued to attempt to resolve the differences with the CCC. Unable to resolve the differences, in accordance with 15 CFR section 930.43(e), the Navy provided notification of its intent to proceed over the objection based on the Navy's determinations that the proposed activities are fully consistent with the applicable enforceable policies of the California Coastal Management Program.

- **National Historic Preservation Act.** The Navy completed consultations in California and Hawaii pursuant to Section 106 of the National Historic Preservation Act (NHPA).

For California, the Navy consulted with the State Historic Preservation Office. The Navy's effect determination was No Historic Properties Affected. The California State Historic Preservation Officer concurred with the Navy's determination in a letter dated October 20, 2017.

For Hawaii, the Navy consulted with representatives from the State Historic Preservation Division (SHPD), the Advisory Council on Historic Preservation, the National Park Service, the Office of Hawaiian Affairs, Native Hawaiian Organizations, and other interested parties. The Navy has determined No Historic Properties Affected from the proposed training and testing in the Hawaii Range Complex. The SHPO initially non-concurred with the Navy's finding in a letter dated November 8, 2018. In an attempt to resolve the concerns noted in the letter, the Navy continued to consult with representatives of the SHPD, to include two in-person meetings with the SHPO. On December 7, 2018, the Navy sent the SHPO a response letter that addressed the SHPO's concerns. The Navy's letter provided NHPA compliance documents supporting the follow-on terrestrial activities associated with the proposed amphibious landings. These land-based activities were not part of the HSTT proposed action nor were they included in the Navy's undertaking for this Section 106 consultation. Further, the Navy also committed to providing a short 1-page annual memo documenting the installations where amphibious landings had occurred as well as whether there had been any in-water inadvertent discoveries in the preceding calendar year. On December 11, 2018, the Navy received a letter from the SHPO concurring with the Navy's finding of no historic properties affected.

Responses to Comments Received on the HSTT Final EIS/OEIS

The Navy received six comment letters on the HSTT Final EIS/OEIS. Of the six letters, five provided no new information of a substantive nature. Comments listed in the letter from the State of Hawaii, Department of Land and Natural Resources – Division of Aquatic Resources, are summarized below, with the Navy’s response following.

Comments: The Division recommends that the Department of the Navy reevaluate potential areas to conduct certain kinds of training in order to attain lower behavioral, TTS or PTS takes in the biologically important areas for cetaceans identified in Biologically Important Areas for Cetaceans Within U.S. Waters - Hawaii Region (Baird et al., Aquatic Mammals, 2015). More specifically, the Division recommends for the Navy to (1) make efforts to further reduce or eliminate the currently planned sonar activities within these mitigation areas, which still allow for a select amount of mid-frequency active sonar (MFAS) or helicopter dipping sonar to occur periodically throughout the 5 years (2018-2023) and (2) for an expansion of the 4-Islands Region mitigation area [figure provided in comment letter, showing the area requested], including year round provisions for reduced or eliminated MFAS, helicopter dipping sonar, explosions or any other activities that alter the behaviors of cetaceans, in order to overlap the other biologically important area for the main Hawaiian Islands Insular Stock of False Killer Whales.

Response: Navy provided extensive analysis and discussion in the HSTT Final EIS/OEIS how exposures of marine mammal species and stocks associated with proposed training and testing activities would result in only short-term effects on most individual animals exposed and would not affect annual rates of recruitment or survival. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Mitigation) of the EIS/OEIS, the Navy implements to the maximum extent practicable, procedural, geographic, and temporal mitigation measures during its training and testing activities to reduce potential impacts to marine life. This scientific-based analysis indicates that with utilization of the Navy’s protective mitigations, there is not a significant impact on marine species. The HSTT Final EIS/OEIS, consistent with the mandates of NEPA, contains a thorough discussion, using the best available science, of the underlying biological and scientific factors associated with possible mitigation for species within potential geographic areas as outlined in Appendix K (Geographic Mitigation Assessment). The Navy used scientific data on vulnerable or sensitive species such as beaked whales and main Hawaiian Islands insular false killer whales to derive the geographic mitigation areas in the Final EIS/OEIS. This analysis is then compared against the operational needs of the Navy for its training and testing activities to develop mitigation procedures and areas, which have the least practicable adverse impact on marine mammals and allow the Navy to meet its training and testing requirements. The promulgated geographic mitigation measures were thoroughly reviewed and approved by NMFS during the consultation process. Finally, the Navy determined that implementing mitigation beyond what is described in Section 5.3 (Procedural Mitigation to be Implemented) and Section 5.4 (Mitigation Areas to be Implemented) would be impracticable due to implications for safety, sustainability, and Title 10 requirements for the reasons more fully described in Appendix K (Geographic Mitigation Assessment) and Chapter 5 (Mitigation).

Comments Related to Navy's NHPA Section 106 Consultation

In addition to the comments on the HSTT Final EIS/OEIS, the Navy received a letter from Earthjustice alleging that the Navy failed to make a "reasonable and good faith" effort to consult with NHOs to identify traditional cultural properties (TCPs) located within the area of potential effects ("APE") and that the Navy failed to adequately analyze and document both its determination that those ocean-based TCPs are not eligible for listing on the National Register and its ultimate finding of no adverse effects on historic properties within the APE.

The Navy concluded its Section 106 consultation with the finding "no historic properties affected" instead of "no adverse effects on identified historic properties" as incorrectly cited in the Earthjustice letter. As outlined above in this record of decision, the Navy engaged in extensive outreach to gain maximum participation from consulting and interested parties. Based on the nature of the Navy's undertaking, the procedures used and the content discussed throughout the process were reasonable and demonstrated that the Navy consulted with all parties in good faith. The topic of ocean-based TCPs recurred in these discussions, and although the Navy diligently pursued additional information from consulting parties and other resources, the Navy ultimately concluded that the information was inadequate in order to analyze their eligibility for inclusion on the National Register of Historic Places. The Navy's position on ocean-based TCPs was thoroughly discussed with and supported by the Hawaii SHPO. As a result of the Navy's consultation, investigation and research, the Navy found that there would be no historic properties affected by the activities proposed in the HSTT EIS/OEIS.

C. CONCLUSION: Based on factors analyzed in the HSTT Final EIS/OEIS, including military training and testing objectives, best available science and modeling data, potential environmental impacts, and input and expertise of Federal and state agencies and non-governmental organizations, as well as from the public, the Navy selects Alternative 1 for implementation. Alternative 1, the Navy's Preferred Alternative, will fully meet Navy current and future training and testing requirements in the HSTT Study Area. By implementing the mitigation measures identified in the HSTT Final EIS/OEIS and associated regulatory documents, and adhering to management plans and monitoring requirements described herein, the Navy has adopted all practicable means to avoid or minimize environmental harm associated with implementing Alternative 1. In addition, the Navy assessed the effects of Alternative 1 in accordance with Executive Order 12114 and concluded that there would be no significant harm to the environment in areas outside the United States and possessions.

18 Dec 18

Date



Phyllis L. Bayer
Assistant Secretary of the Navy
(Energy, Installations & Environment)