DEPARTMENT OF DEFENSE

Department of the Navy

Record of Decision for the Atlantic Fleet 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 in the Atlantic Fleet Training and Testing (AFTT) Final Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS). Implementation of Alternative 1 will enable the Navy to meet military readiness requirements to achieve the levels of operational readiness required under Title 10 United States Code (U.S.C.) Section 5062.

The AFTT 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, as described in the AFTT 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 western Atlantic Ocean along the eastern coast of North America, in portions of the Caribbean Sea and the Gulf of Mexico, at select Navy pierside locations, within port transit channels, near select civilian ports, and in bays, harbors, and inshore waterways (e.g., lower Chesapeake Bay). A detailed description of Alternative 1 is provided in Chapter 2 (Description of Proposed Action and Alternatives) of the AFTT Final EIS/OEIS. This decision will enable the Navy to meet changing military readiness 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 70 years. The tempo and types of training and testing activities have fluctuated through time 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 influenced the frequency, duration, intensity, and location of required training and testing activities from year to year. The AFTT EIS/OEIS reflects the most up-to-date compilation of training and testing activities deemed necessary to accomplish military readiness requirements into the reasonably foreseeable future. The types and numbers of activities included in the Proposed Action account for fluctuations in training and testing in order to meet military readiness requirements.

While specific training and testing activities, activity levels, and locations have evolved over the years 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 comprises 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, and aircraft crews can conduct training and testing in realistic conditions. The combination of undersea ranges and operating areas (OPAREAs) with land training ranges, safety landing fields, and nearshore amphibious landing sites is critical to realistic training and testing. A test range may have electronic instrumentation including radar, optical tracking, and communication systems. Electronics on the range capture important data on the effectiveness of tactics and equipment—data that provide a feedback mechanism for training 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 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 range complexes, test ranges, and 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 U.S.C. 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 Final EIS 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 is a cooperating agency on this EIS/OEIS, and has its own distinct purpose and need, as described fully in the FEIS/OEIS. Briefly, NMFS' purpose is to evaluate the Navy's Proposed Action pursuant to NMFS's 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 NMFS' 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 AFTT EIS/OEIS in the *Federal Register* (80 FR 69951) and 23 newspapers on November 12, 2015. An amended Notice of Intent (80 FR 75076) was issued in the *Federal Register* on December 1, 2015 correcting an error in the comment deadline date and telephone number. Notice of Intent and scoping notification letters were distributed at the beginning of the scoping period to 274 entities including federally recognized tribes; state-elected officials; and federal, regional, and state agencies. Postcards were mailed to 647 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, and the project website address to obtain more information.

During the development of the AFTT 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 and 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 72 scoping comments were received and considered during preparation of the AFTT Draft EIS/OEIS. The comments requested that the Navy analyze environmental issues for physical and biological resources, such as sonar impacts on marine mammals and human resources (e.g., public health and safety). Some of the specific scoping concerns included: analyzing a true No Action Alternative; including reasonable alternatives that incorporate mitigation measures that would mitigate impacts of noise and other disturbances to marine mammals and sea turtles; suggesting that the Navy develop and implement a

long-term monitoring program to assess potential cumulative impacts of the Proposed Action on marine animals and their habitat; requesting the Navy to study a wider range of alternatives and suggesting that the Navy develop alternatives that consider time and geographic restrictions, specifically during nesting and migration seasons; concerns over the impacts to marine life and marine habitats, particularly those impacts resulting from ship strike and sonar and ensuring the Navy is complying with the MMPA and ESA.

The 60-day public comment period on the AFTT Draft EIS/OEIS began with the issuance of the Notice of Availability (82 FR 29859) and a Notice of Public Meetings (82 FR 29855) in the *Federal Register* on June 30, 2017. A correction of the Notice of Availability (82 FR 31597) was issued in the *Federal Register* on July 7, 2017 to correct the comment period end date. The Navy made significant efforts to notify the public to ensure maximum public 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 recognized tribes, congressional and state-elected officials, federal agencies, state agencies, non-governmental organizations, individuals, and community groups. 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. Notice of Availability and public meeting advertisements for the AFTT Draft EIS/OEIS were placed in 23 newspapers located throughout the AFTT Study Area (The Portland Press Herald [Portland, ME], The Times Record [Cumberland and Sagadahoc, ME], The Standard Times [New Bedford, MA], Boston Herald [Boston, MA], The Newport Daily News [Newport, RI], The Providence Journal [Providence, RI], The Daily Times [Salisbury, MD], Outer Banks Sentinel [Outer Banks, NC], The Virginian-Pilot [Norfolk, VA], The Daily Press [Newport News, VA], Jacksonville Daily News [Jacksonville, NC], Wilmington Star News [Wilmington, NC], Charleston Post and Courier [Charleston, SC], Savannah Morning News [Savannah, GA], Florida Times Union [Jacksonville, FL], Florida Sun Sentinel [Fort Lauderdale, FL], Florida Today [Brevard, FL], The News Herald [Panama City, FL], Pensacola News Journal [Pensacola, FL], Mississippi Press [Pascagoula, MS], Times-Picayune [New Orleans, LA], Galveston Daily News [Galveston, TX], and Caller-Times [Corpus Christi, TX]). Additional attempts to educate and involve the public on the AFTT Draft EIS/OEIS included the use of six informational videos that were posted on the project website. Electronic copies of the AFTT Draft EIS/OEIS were also provided to 29 public libraries located throughout the AFTT Study Area (Annapolis, MD; Panama City, FL; Santa Rosa Beach, FL; two libraries in Pensacola, FL; West Palm Beach, FL; Jacksonville, FL; Key West, FL; Morehead City, NC; Jacksonville, NC; Havelock, NC; Kill Devil Hills, NC; Manteo, NC; Wilmington, NC; Beaufort, NC; Mobile, AL; Boston, MA; Hyannis, MA; Kingsland, GA; Charleston, SC; Metairie, LA; New Orleans, LA; Pascagoula, MS; Norfolk, VA; Portland, ME; Providence, RI; New London, CT; Houston, TX; Corpus Christi, TX). The public comment period began on June 30, 2017 and concluded on August 29, 2017.

A variety of methods were made available to the public to comment on the AFTT Draft EIS/OEIS. Five open house public meetings were held on July 19, 2017 (Providence, RI), July 25, 2017 (Morehead City, NC), July 26, 2017 (Norfolk, VA), August 1, 2017 (Jacksonville, FL), and August 3, 2017 (Panama City, FL). At these meetings, Navy representatives were available to provide information and answer questions posed by members of the public one-on-one. Attendees could provide comments using paper comment

forms or 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. Comments on the AFTT Draft EIS/OEIS were received from 7 federal agencies, 31 state agencies, 7 local/regional government agencies and representatives, 5 non-governmental organizations, 2 tribal governments, 1 commercial group, and 63 private individuals.

In response to the comments received through the public comment process, as well as through its consultations with regulators, Navy made adjustments to its Proposed Action that are reflected in the AFTT Final EIS/OEIS. Specifically, the changes included: (1) changes to the tempo or location of certain proposed activities, (2) refinement to the modeling inputs for training and testing, and (3) development of additional mitigation measures. 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 mitigations to ensure additional protection to marine species when those mitigations were reasonable and practical to implement.

The Notice of Availability for the AFTT Final EIS/OEIS was published in the *Federal Register* on September 14, 2018 (83 FR 46733). Concurrent with the publication in the *Federal Register*, notifications of the availability of the AFTT Final EIS/OEIS were published in the same 23 newspapers listed above. The Navy made significant efforts to notify the public of the publication of the AFTT Final EIS/OEIS including using letters, postcards, press releases, project website subscriber emails, and newspaper advertisements. Stakeholder letters were sent to federally recognized tribes, congressional and state-elected officials, federal agencies, state agencies, non-governmental organizations, individuals, and community groups. The AFTT Final EIS/OEIS was also made available on the project website and at the same 29 public libraries in cities along the east coast and the Gulf of Mexico. One letter was received on the AFTT Final EIS/OEIS during the 30-day wait period that ended on October 15, 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 AFTT 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 new or updated 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 of classified data regarding the number of hull-mounted mid-frequency sonar hours used to meet anti-submarine warfare training requirements, the Navy has an increased understanding of the usage of sonar, the competing training 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 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 requirements while reflecting a lower, and more realistic, impact on the environment.

In the AFTT 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 also 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 AFTT EIS/OEIS, data was 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 of proposed training and testing, the Navy does not reasonably foresee a change to the Navy's direct and indirect impact conclusions across other time frames (ex., 2, 7, 10 years).

Three alternatives are analyzed in the AFTT EIS/OEIS.

- 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 AFTT Study Area). For National Marine Fisheries Service (NMFS), denial of an application for an incidental take authorization constitutes the NMFS No Action Alternative, which is consistent with NMFS' 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 AFTT Study Area, and under the No Action Alternative, the Navy would not conduct the proposed training and testing activities in the AFTT Study Area. While the No Action Alternative is the environmentally preferable alternative, it fails to meet the Navy's Purpose and Need of the Proposed Action.
- Alternative 1 (Preferred Alternative) considers fluctuations in training cycles and deployment schedules that do not follow a traditional annual calendar but instead are influenced by in-theater demands and other external factors. This alternative does not analyze a maximum number of carrier strike group Composite Training Unit Exercises (one type of major exercise) every year, but instead assumes a maximum number of exercises would occur during 2 years of any 5-year period. As a result, Alternative 1 analyzes a maximum of 3 Composite Training Unit Exercises in any given year and not more than 12 over any 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 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. All practicable means to avoid or minimize environmental harm from Alternative 1 have been adopted. 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 includes a higher number of training unit 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 could 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, have attributes necessary to support effective training and testing. There are no other potential locations in the Atlantic, where roughly half of the U.S. Navy's fleet is located, where land ranges, OPAREAs, undersea terrain and ranges, testing 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 ready for combat operations.
- **Simulated Training and Testing Only.** The Navy currently uses simulation for training and testing whenever possible; however, as described above, 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 with active sonar is a top priority for the Navy.
- **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 AFTT Study Area associated with the presence of species. However, such an alternative would present a patchwork of areas and time periods in which the Navy could conduct required training and testing, preventing the Navy from conducting the full scope of activities necessary to fulfill its Title 10 responsibilities and running counter to the purpose and need of the Proposed Action. Thus such an alternative would not be reasonable. Further, The National Environmental Policy Act identifies the 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 are incorporated into the Proposed Action under both action alternatives, 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 alternatives as described in Chapter 5 (Mitigation). Therefore, the mitigation would be implemented regardless of which action alternative is selected.

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 resource areas: 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, and seafloor devices may result in physical damage to some types of marine vegetation such as seagrass, *Sargassum*, and attached macroalgae. Impacts are not expected to result in detectable changes to their growth, survival, or propagation, and are not expected to result in population-level impacts.

  Pursuant to the ESA, the Navy's activities will have no effect on threatened and endangered vegetation species present in the AFTT Study Area – Johnson's seagrass (*Halophila johnsonii*). The Navy's activities will have no effect on designated Johnson's seagrass critical habitat within the Study Area.

- Invertebrates: The use of sonar and other transducers, air guns, and pile driving, as well as vessel noise and weapons noise, are not expected to cause more than a short-term behavioral disturbance or startle reaction to marine invertebrates capable of detecting nearby sound (e.g., cephalopods and crustaceans).

  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 military expended materials has the potential to result in physical impacts to coral reefs; all other activities and sources are either not expected to have any impacts on coral reefs 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 arthropods, mollusks, and echinoderms). Impacts are not expected to result in detectable changes to their growth, survival, recruitment, or reproduction, and are not expected to result in population-level impacts.

- Pursuant to the ESA, the Navy concluded that activities may affect, but are not likely to adversely affect threatened and endangered invertebrate species present in the AFTT Study

Area – boulder star coral (*Montastraea annularis*), elkhorn coral (*Acropora palmata*), lobed star coral (*Orbicella annularis*), mountainous star coral (*Montastraea faveolata*), pillar coral (*Dendrogyra cylindrus*), rough cactus coral (*Mycetophyllia ferox*), and staghorn coral (*Acropora cervicornis*). Explosives, military expended materials, and seafloor devices may affect but are not likely to adversely affect designated elkhorn or staghorn coral critical habitat within the Study Area. All other stressors would have no effect on these designated critical habitats.Habitats: The greatest potential impact to marine habitats will be from in-water explosives near the hard bottom habitats. 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 hard bottom, though unlikely, would be long-term. Activities as proposed under Alternative 1 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 other transducers could also result in hearing loss. Aircraft noise would 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 result in temporary and infrequent impacts, more severe impacts such as mortality or injury could lead to permanent or long-term consequences for individuals but, overall, long-term consequences for fish populations are not expected. Explosives may result in behavioral disturbance, physiological stress, hearing loss, injury, or mortality of some fish (or larvae) close to the source. During development of the AFTT 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. In-water electromagnetic devices may cause temporary disruptions to navigation and orientation for certain types of fish (e.g., elasmobranchs, sturgeon, tuna, salmon, eels, and stargazers). Vessels and in-water devices may result in injury or mortality to some fish that are large, slow-moving, and may occur near the surface (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. Impacts 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 concluded that for Atlantic salmon (*Salmo salar*), oceanic whitetip shark (*Carcharhinus longimanus*), scalloped hammerhead shark (*Sphyrna lewini*), and smalltooth sawfish (*Pristis pectinata*), only explosives would be likely to adversely affect these species. The remaining stressors either have no effect or are not likely to adversely affect these species.

Explosives, vessels and in-water devices, entanglement (from decelerators/parachutes only), and ingestion of military expended materials are likely to adversely affect Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). Explosives and entanglement (from decelerators/parachutes only) are likely to adversely affect giant manta ray (*Manta birostris*). Explosives, vessels, and in-water devices are likely to adversely affect Gulf sturgeon (*Acipenser oxyrinchus desotoi*). Ingestion is likely to adversely affect shortnose sturgeon (*Acipenser brevirostrum*). The remaining stressors either have no effect or are not likely to adversely affect these species.

All stressors are either not likely to adversely affect, or have no effect on Nassau grouper (*Epinephelus striatus*).

Explosives and seafloor devices may affect but are not likely to affect designated critical habitat for the Gulf sturgeon. Seafloor devices may affect but are not likely to adversely affect designated critical habitat for the Atlantic sturgeon. There will be no effects on designated critical habitat for Atlantic salmon and smalltooth sawfish from any stressor.

- Marine Mammals: The Navy performed a quantitative analysis to estimate the number of marine mammals that could potentially be affected by acoustic sources or explosives used during Navy training and testing activities, as described in the technical report titled *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 behavioral disturbance, physiological stress, short-term/intermittent masking, temporary threshold shift and permanent threshold shift in certain marine mammals, which equates to Level B or Level A harassment under the MMPA. The vast majority of these estimated impacts are temporary and intermittent behavioral disturbance and associated stress. The use of explosives may cause behavioral disturbance, physiological stress, short-term/intermittent masking, temporary threshold shift and permanent threshold shift of certain marine mammals equivalent to Level B or Level A harassment, or mortality (only during ship shock trials) under the MMPA. Vessel strike could result in Level A harassment or mortality under the MMPA, specifically to certain large whale species. Although a 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, wire and cables, decelerators/parachutes, biodegradable polymers, military expended materials, and seafloor devices may result in minor and temporary behavioral reactions, which 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 (fitness), or species recruitment.

  Pursuant to the ESA, the Navy determined that sonar and other transducers, explosives, and vessel strikes are likely to adversely affect (by way of harassment or harm) some ESA-listed marine mammals, which include the North Atlantic right whale (*Eubalaena glacialis*), sei whale (*Balaenoptera borealis*), fin whale (*Balaenoptera physalus*), blue whale (*Balaenoptera*

musculus), and the sperm whale (*Physeter macrocephalus*). No harm to the North Atlantic right whale is expected from these stressors thanks, in part, to additional mitigation measures that Navy has imposed specific to this species.

Other stressors such as pile driving, weapons noise, vessel noise, aircraft noise, energy sources (e.g., in-water electromagnetic devices), physical disturbance and strike sources (with the exception of vessels for some species) entanglement sources, ingestion sources, and secondary stressors would either have no effect or are not likely to adversely affect ESA-listed marine mammals.

- Reptiles: The Navy performed a quantitative analysis to estimate the number of sea turtles that could potentially be affected by acoustic sources or explosives used during Navy training and testing activities, as described in the technical report titled *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 may result in exposures that cause temporary threshold shift, 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, temporary threshold shift, injury, or mortality (only during ship shock trials).

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

  Air guns, pile driving, weapons noise, vessel noise, aircraft noise, in-water electromagnetic devices, high-energy lasers, in-water devices, military expended materials, and seafloor devices may result in exposures of sea turtles to 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 (fitness), or species recruitment.

  Pursuant to the ESA, the Navy determined that explosives and vessel strikes are likely to adversely affect threatened and endangered sea turtle species present in the AFTT Study Area – green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley turtle (*Lepidochelys kempii*), leatherback turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta*). Air guns (during testing only), and pile driving (during training only) are likely to adversely affect only loggerhead sea turtles, and sonar and other transducers (during testing only) are likely to adversely affect Kemp's ridley sea turtles, leatherback sea turtles, and loggerhead sea turtles. Entanglement stressors (decelerators/parachutes only) are likely to adversely affect green sea turtles, Kemp's riddle sea turtles, leatherback sea turtles, and loggerhead sea turtles. Sonar and other transducers, vessel noise, weapons noise and explosives are not likely to adversely affect loggerhead sea turtle critical habitat. There will be no effects on critical habitat for green sea turtle, hawksbill sea turtle, and leatherback sea turtle from any stressor.

Other stressors such as weapons noise, vessel noise, aircraft noise, energy stressors (e.g., in-water electromagnetic devices), physical disturbance and strike stressors (with the exception of vessels for some species), entanglement stressors (with the exception of decelerator/parachutes during training for some species), ingestion stressors, and secondary stressors would either have no effect or are not likely to adversely affect ESA-listed sea turtles.

Impacts from vessel noise, aircraft noise, and explosives (for training only) may affect but are not likely to adversely affect the American crocodile (*Crocodylus acutus*). There will be no effects on American crocodile critical habitat from any stressor.

- Birds and Bats: The use of sonar and other transducers may result in a behavioral disturbance to diving birds but would not affect bats. Physiological impacts, such as hearing loss, would likely only occur if a bird was 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 or bats. Although a few individual birds or bats may experience long-term impacts such as potential injury and mortality, population-level impacts are not expected. 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 may result in exposures of seabirds to 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 (fitness), or species recruitment.

  Pursuant to the ESA, the Navy activities may affect, but are not likely to adversely affect threatened and endangered bird and bat species present in the AFTT Study Area – Bermuda petrel (*Pterodroma cahow*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), roseate tern (*Sterna dougallii*), Indiana bat (*Myotis sodalis*), and Northern long-eared bat (*Myotis septentrionalis*). The Navy's activities would have no effect on piping plover critical habitat within the Study Area

Recent Scientific Information

The scientific community continues to conduct research to generate new data in an effort to expand and improve our 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. Since the publication of the AFTT Final EIS/OEIS, the Navy has reviewed numerous publications relevant to the analysis of impacts described in the AFTT Final EIS/OEIS. The Navy has identified additional references, many of them published within the last year, that are relevant to the analysis in the AFTT 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. Overall, these new references do not change the impacts analysis 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 relevancy 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 recommends further investigation of the mechanisms of hearing sensitivity reduction in order to understand the implications for interpretation of some existing temporary threshold shift data obtained from captive animals, notably for considering temporary threshold shift due to short duration, and 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 – Pirotta, et al. (2018)]. These models, taken into consideration with similar models described in the AFTT Final EIS/OEIS, will continue to refine approaches to the framework for analyzing population consequences of disturbance. Such models also help identify what data inputs require further investigation. As described in the AFTT 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 two 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 AFTT 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 scheduled to be issued on October 26, 2018; the August 24, 2018 letter from the Greater Atlantic Region Fisheries Office; the August 24, 2018 letter from the Southeast Regional Office concluding the Essential Fish Habitat consultation; and the NMFS Final Rule and Letters of Authorization (LOAs) scheduled to be issued under

the MMPA by November 9, 2018 (see the section on Agency Consultation and Coordination of this Record of Decision for further details).

The Navy will implement mitigation measures to avoid or minimize potential impacts on biological and cultural resources to the maximum extent practicable. 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 will be implemented during applicable activities involving active sonar, air guns, pile driving, weapons firing, aircraft overflights, explosives, non-explosive practice munitions, vessel movements, and towed in-water devices.

  The Navy developed several new or enhanced procedural mitigation measures for the Proposed Action, including: (1) adding a requirement to transmit special notification messages to applicable naval units with information from North Atlantic right whale Dynamic Management Areas, (2) 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), (3) requiring additional platforms already participating in explosive activities to support observing for applicable biological resources before, during, and after the activity, (4) increasing the size of the mitigation zones for several acoustic or explosive activities, and (5) developing new mitigation for air guns.

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

  The Navy developed several new or enhanced geographic mitigation areas for the Proposed Action, including: (1) enlarging the Northeast North Atlantic Right Whale Mitigation Area to cover the full extent of the northeast North Atlantic right whale critical habitat, (2) developing a new geographic mitigation area known as the Gulf of Maine Planning Awareness Mitigation Area to limit hull-mounted mid-frequency active sonar hours, not conduct major training exercises, and implement special reporting requirements for the use of active sonar and in-water explosives, (3) enlarging the Southeast North Atlantic Right Whale Mitigation Area to correlate with the occurrence of North Atlantic right whales to the maximum extent practicable based on readiness requirements, (4) expanding the Gulf of Mexico Planning Awareness Area to cover the full extent of the Bryde's whale small and resident population area that was expanded during the 2016 NMFS status review, (5) developing a new Bryde's Whale Mitigation Area to restrict use of all explosives except for mine warfare activities in the expanded Bryde's whale small and resident population area, (6) implementing special reporting procedures for the use of active

sonar and in-water explosives within the new Southeast North Atlantic Right Whale Critical Habitat Special Reporting Area, the new Bryde's Whale Mitigation Area, the newly expanded Northeast North Atlantic Right Whale Mitigation Area, and the newly expanded Southeast North Atlantic Right Whale Mitigation Area, (7) adding a requirement for Navy units conducting training or testing activities in the Jacksonville Operating Area to use Early Warning System North Atlantic right whale sightings data as they plan specific details of events and to assist visual observation of applicable mitigation zones to minimize potential interactions with North Atlantic right whales to the maximum extent practicable, (8) adding seafloor resource mitigation areas for submerged aquatic vegetation, (9) adding a requirement for vessels to operate within specific water depths within the Key West Range Complex to avoid bottom scouring and prop dredging, and (10) adding a requirement to not use explosive sonobuoys, explosive torpedoes, explosive medium-caliber and large-caliber projectiles, explosive missiles and rockets, explosive bombs, explosive mines during mine countermeasure and neutralization activities, and anti-swimmer grenades within 3.2 NM of an estuarine inlet and within 1.6 NM of the shoreline in the Navy Cherry Point Range Complex from March through September to the maximum extent practicable to avoid or reduce potential impacts on sea turtles near nesting beaches during the nesting season and on sandbar sharks in Habitat Areas of Particular Concern.

During the consultation process and since the release of the AFTT Final FEIS/OEIS, updates have been identified for two Ship Shock Trial Area boxes located in the Atlantic Ocean portion of the AFTT Study Area. The first update results from a comment NMFS received during the public comment period for the Proposed Rule requesting that the Ship Shock Trial Area box located in the Virginia Capes Operating Area (VACAPES OPAREA) be moved outside of the Mid-Atlantic Planning Awareness Area and to include a 5 NM buffer around the Planning Awareness Area. Navy assessed and agreed to move the Ship Shock Trial Area box away from the Mid-Atlantic Planning Awareness Area and included a 5 NM buffer as requested. Navy's assessment determined there was no change to the potential impacts to biological resources, or impacts to the conduct of this activity. Navy has provided NMFS with a revised figure indicating the revised location of the Ship Shock Trial Area box. The second update was made to the Ship Shock Trial Area box located in the Jacksonville OPAREA (JAX OPAREA). The size of the of the JAX OPAREA Ship Shock Trial Area box has been enlarged due to updates in requirements. The AFTT Final EIS/OEIS did analyze the larger Ship Shock Trial Area box and the updated box was used in the acoustic and explosive modelling, however, the figures located in the AFTT Final EIS/OEIS had not been updated. Revised figures showing the new Mid-Atlantic and JAX OPAREA Ship Shock Trial Area box are available for public viewing on the AFTT Website: http://aftteis.com/.

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 and bat 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. To evaluate the extent to which military expended materials may have impacted ESA-listed corals and designated coral critical habitat in or near the Key West Range Complex, the Navy will implement a new coral monitoring and reporting initiative that will involve coordination with the NMFS ESA Interagency Cooperation Division and relevant entities (e.g., National Marine Sanctuaries Program, NOAA Marine Debris program, relevant coral researchers).

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 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.

Adaptive Management

The Navy's adaptive management process and reporting requirements serve as the basis for evaluating performance and compliance, and involves 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 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 AFTT EIS/OEIS process. NMFS is a cooperating agency pursuant to 40 CFR 1501.6 because of its expertise and regulatory authority over certain marine resources. Additionally, NMFS has used the Navy's AFTT EIS/OEIS as its NEPA documentation in support of its rule-making process under the MMPA. In addition, the Navy consulted and coordinated with other federal and state agencies, including the Office of National Marine Sanctuaries, U.S. Fish and Wildlife

Service, State Historic Preservation Officers and Coastal Zone Management Act administrators within the Study Area in conjunction with actions addressed in the AFTT 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 five-year incidental take authorizations to NMFS on June 16, 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 August 4, 2017, a revised request was submitted to NMFS which included: 1) corrections to errors, typos, and transcription mistakes; and 2) addition of training and testing requirements that were not identified in time to incorporate into the initial application. On September 15, 2017 a memorandum to address updates to ship strike calculations was submitted to NMFS. NMFS is scheduled to issue their Final Rule on October 30, 2018 and concluded that the Navy's training and testing activities will have a negligible impact on the marine mammal species and stocks present in the AFTT Study Area, and when considering implementation of the mitigation measures described in the AFTT Final EIS/OEIS, the Navy will affect the least practicable adverse impact on marine mammal species or stocks and their habitat. By November 9, 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 AFTT 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. The LOAs were coordinated by NMFS with the Incidental Take Statements the Navy received 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 December 15, 2017. Species addressed included the North Atlantic right whale, bowhead whale, sei whale, fin whale, blue whale, sperm whale, ringed seal, green sea turtle, hawksbill sea turtle, Kemp's ridley sea turtle, loggerhead sea turtle, leatherback sea turtle, boulder star coral, elkhorn coral, lobed star coral, mountainous star coral, pillar coral, rough cactus coral, staghorn coral, Atlantic salmon, Atlantic sturgeon, giant manta ray, Gulf sturgeon, Nassau grouper, oceanic whitetip shark, scalloped hammerhead shark, shortnose sturgeon, and smalltooth sawfish, as well as designated critical habitat for the loggerhead sea turtle, Atlantic salmon, Atlantic sturgeon, smalltooth sawfish, Gulf sturgeon, staghorn coral, and elkhorn coral. NMFS is scheduled to issue their Biological Opinion on October 30, 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. In addition to the Biological Opinion, NMFS issued two Incidental Take Statements, one each for Navy training activities and for testing activities. These Incidental Take Statements were coordinated by NMFS with the issuance of LOAs the Navy received for the incidental take of marine mammals pursuant to section 101(a) (5) of the MMPA.

The Incidental Take Statements exempt Navy actions as described in the AFTT Final EIS/OEIS from the prohibitions set forth in section 9 of the ESA.

On October 23, 2017 the Navy requested informal consultation with the U.S. Fish and Wildlife Service Northeast, Southeast, and Southwest Regional Offices and requested concurrence with the determination that the training and testing activities under Alternative 1 may affect, but are not likely to adversely affect the Bermuda petrel, roseate tern, piping plover, red knot, Indiana bat, northern long-eared bat, West Indian manatee, and American crocodile. On January 12, 2018, the Navy provided U.S. Fish and Wildlife Service supplemental information addressing helicopter training in the lower Chesapeake Bay. On June 27, 2018 the U.S. Fish and Wildlife Service concurred with the Navy's determination that AFTT training and testing activities as described under Alternative 1 will have no effect on, or are not likely to adversely affect, federally-listed species or designated critical habitat under U.S. Fish and Wildlife Service jurisdiction.

- Magnuson-Stevens Fishery Conservation and Management Act: The Navy determined that the Proposed Action could result in adverse effects to Essential Fish Habitat and initiated consultation with NMFS by submitting an Essential Fish Habitat Assessment on February 12, 2018 to the Habitat Conservation Division, NMFS, Greater Atlantic Regional Office and Southeast Regional Office. During the consultation period, NMFS provided conservation recommendations to avoid, minimize, or offset impacts to Essential Fish Habitat, which were incorporated as part of the Proposed Action. The consultation was completed on August 24, 2018.

- National Marine Sanctuaries Act: The Navy submitted a Sanctuary Resource Statement to the NOAA on December 15, 2017 in accordance of section 304(d) of the National Marine Sanctuaries Act. The Navy concluded that the Preferred Alternative (Alternative 1) may incidentally expose sanctuary resources that reside within Stellwagen Bank, Gray's Reef, and Florida Keys National Marine Sanctuaries to sound and other environmental stressors associated with training and testing activities. On April 3, 2018, the Navy submitted an addendum to the Sanctuary Resource Statement to address questions from the Office of National Marine Sanctuaries. On May 15, 2018, the Navy received a response letter from the Office of National Marine Sanctuaries that included two recommended reasonable and prudent alternatives in accordance with the National Marine Sanctuaries Act. The Navy has agreed to implement the recommendations as provided in the Navy's letter of August 17, 2018 to the Office of National Marine Sanctuaries.

- Coastal Zone Management Act: In March 2018, the Navy submitted consistency determinations to 18 states (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Louisiana, Mississippi, and Texas) including proposed activities that may have reasonably foreseeable effects on coastal uses or resources. Navy either received concurrence or assumed concurrence (due to lack of response, in accordance with 15 CFR 930.41) from 16 of the 18 states. Delaware provided conditional concurrence, to which the Navy and Delaware agreed upon clarification of the condition. Georgia objected to the Navy's consistency determination. A

series of exchanges between the Navy and Georgia were unable to resolve Georgia's objection. The Navy notified Georgia, pursuant to 15 CFR 930.43(d), of its intent to proceed with the Proposed Action over the state's objection. The Navy determined that no activities were proposed within or in proximity to the coastal zones of Puerto Rico and the U.S. Virgin Islands. Therefore, the Navy concluded "no effect' to the coastal resources and the coastal zone of Puerto Rico and the U.S. Virgin Islands and, as a result, was not required to consult under the Coastal Zone Management Act with those coastal zone managers of those territories.

- National Historic Preservation Act: In March 2018, the Navy initiated consultation under Section 106 of the National Historic Preservation Act for activities occurring within state waters of 18 states (Alabama, Connecticut, Delaware, Florida, Georgia, Louisiana, Massachusetts, Maryland, Maine, Mississippi, North Carolina, New Hampshire, New Jersey, New York, Rhode Island, South Carolina, Texas, and Virginia). The Navy either received concurrence with the finding of "no historic properties affected", "no adverse effect to historic properties" or assumed concurrence [due to lack of response, in accordance with 36 CFR 800.3(c)(4)] from all 18 states. The Navy determined that proposed activities potentially occurring within or in proximity to the coastal zones of Puerto Rico and the U.S. Virgin Islands have previously been reviewed by Puerto Rico and the U.S. Virgin Islands Historic Preservation Offices and the potential effects on historic properties would not be significantly altered from those previously reviewed.

Responses to Comments Received on the AFTT Final EIS/OEIS

The Navy received one letter during the 30-day wait period following the publication of the Notice of Availability for the AFTT Final EIS/OEIS. It was from the U.S. Department of Interior. A summary of comments contained in the letter and Navy responses are provided below.

Comment 1: Different language is used under the ESA paragraph in Section 3.7 (p. 3.7-331-332) than is used under the MMPA paragraph. The AFTT Final EIS/OEIS claims no incidental take will occur pursuant to the MMPA but these same activities "may affect" manatees pursuant to the ESA. Making the same claim under the ESA as the MMPA would seem to make more sense. Alternatively, it might be appropriate to change "may affect" to "may affect but is not likely to adversely affect."

Response: The Navy's conclusion statements in the AFTT Final EIS/OEIS summarize the findings of its analyses under the ESA and MMPA and the terminology used reflects the different regulatory standards.

The Navy submitted an ESA consultation package to the U.S. Fish and Wildlife Service with an in-depth analysis of all activities that resulted in a "may affect" determination in the AFTT Final EIS/OEIS. The consultation package included additional detail in the conclusion statements for each species. As summarized in Section 6.0 (Determination of Effect) of the October 2017 Atlantic Fleet Training and Testing Activities Consultation Package, the Navy concluded that the Proposed Action "may affect but is not likely to adversely affect" the West Indian manatee. Also, all final effect determinations for marine mammal ESA species (including the West Indian Manatee) consulted on, and concurred with by U.S. Fish and Wildlife Service, can be found in Section 3.7.5 (Table 3.7-109) of AFTT Final EIS/OEIS.

Comment 2: The Service also reiterates that although we believe incidental take is highly unlikely, if modifications are made to the proposed activities that may affect manatee or its habitats in a way not previously considered, if additional information becomes available involving potential effects to the manatee or other listed species not previously considered, or if take of manatees occurs, consultation between the U.S. Navy and the U.S. Fish and Wildlife Service should be reinitiated.

Response: The Navy will notify the appropriate regulatory agency, which may include NMFS or the U.S. Fish and Wildlife Service, immediately or as soon as operational security considerations allow if it observes an unauthorized take of a marine mammal, including manatees. Additionally, as Navy has previously agreed to, if modifications are made to the Proposed Action, or if new information comes available that would change the conclusions of the analysis, Navy will coordinate with the appropriate federal agency.

Comment 3: Table 5.3-4 Procedural Mitigation for Pile Driving (p. 5-26). Log maintenance and reporting of manatee sightings/injuries in the Navy Cherry Point Range Complex should be expanded to include any areas further south if pile driving is performed. (This is likely not required in the AFTT Final EIS/OEIS because no pile driving is currently planned farther south.)

Response: The Proposed Action does not include pile driving activities further south than the Navy Cherry Point Range Complex; therefore, expansion of the mitigation measures for pile driving to areas further south is not necessary.

Comment 4: Table 5.3-18 Procedural Mitigation for Vessel Movement (p. 5-62). Fendering requirements are only applied at Kings Bay, Georgia. The AFTT Final EIS/OEIS states the submarine fendering techniques here do not apply to other vessel types or locations [see response to comment 73]; however, some level of fendering should be applied to all areas inhabited by manatees. The standard requirement is to provide a minimum of four feet standoff at maximum compression of the fender material. Areas used by manatees include Kings Bay, Georgia, the vicinity of Mayport, Port Canaveral, and Pensacola, Florida; Mobile, Alabama; and any other locations that are used from North Carolina south, in the Gulf of Mexico, and in the vicinity of Puerto Rico.

The U.S. Fish and Wildlife Service has routinely requested that C-tractor (or similar) tugs in Kings Bay, Georgia, have propeller guards. This should be included as a mitigation measure for these activities.

Response: As acknowledged in the U.S. Department of the Interior letter and addressed in the AFTT Final EIS/OEIS, the mitigation measures for submarine fendering techniques at Kings Bay, Georgia do not apply to other vessel types or locations (e.g., Naval Station Mayport) because of the unique method of mooring submarines to the Kings Bay wharf. Due to hull differences between submarines and the various surface ships, all vessels are not moored in the same manner. With regards to mooring ships in other ports, Navy typically uses fenders and/or mooring camels to maintain separation between the ship and the pier or quay wall. This minimizes any potential risk to impacting manatees. Regarding the use of C-tractor (or similar) tugs, this is not part of the AFTT Proposed Action. Any additional mitigation regarding these vessels would be better addressed through the installations Integrated Natural Resources Management Plans.

Comment 5: Mitigation requirements for small boats applied to Mayport Naval Station should be applied to all areas inhabited by manatees.

Response: The Navy designed specialized mitigation measures for manatees at Naval Station Mayport based on the types of activities occurring at that location, which generally has higher occurrences of manatees relative to other locations in the AFTT Study Area. Vessel movements within limited other inshore waters could potentially co-occur with manatees; however, due to the implementation of standard operating procedures and procedural mitigation measures for all vessel movements in the AFTT Study Area, there have been no manatee vessel strikes as a result of Navy training or testing in the AFTT Study Area. The Navy does not anticipate that it will disturb or strike West Indian manatees under the Proposed Action; therefore, additional mitigation (e.g., speed restrictions, propeller guards) is not warranted and potential impacts to readiness or the significant expense that would be incurred is not justified.

C. CONCLUSION: Based on factors analyzed in the AFTT Final EIS/OEIS, including military training and testing requirements, best available science and modeling data, potential environmental impacts, and the public interest, the Navy selects Alternative 1, the Preferred Alternative, to implement the Proposed Action. Alternative 1, the Navy's Preferred Alternative, will fully meet Navy current and future training and testing requirements in the AFTT Study Area. Under Alternative 1, the Navy analyzed a representative year of training to account for natural fluctuations of training cycles, deployment schedules, and the use of synthetic training opportunities. Alternative 1 represents the minimal level of activity necessary to meet Navy's requirements. With implementation of the mitigation measures identified in the AFTT Final EIS/OEIS and associated regulatory documents developed in consultations with NMFS, U.S. Fish and Wildlife Service, states, and territories adjacent to the AFTT Study Area, and adherence to management plans and monitoring requirements described herein, environmental impacts associated with implementing Alternative 1 will be minimized. In addition, the Navy assessed the effects of Alternative 1 in accordance with EO 12114 and concluded that there would be no significant harm to the environment in areas outside the United States, its territories, and possessions.

18 Oct 18

Date

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