

Appendix H Public Comment Responses

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**Final
Environmental Impact Statement/Overseas Environmental Impact Statement
Atlantic Fleet Training and Testing**

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APPENDIX H PUBLIC COMMENT RESPONSES

This appendix includes information about the public's participation in the development of the Atlantic Fleet Training and Testing (AFTT) Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS).

H.1 INTRODUCTION

The Navy would like to thank the elected officials, Native American tribes and nations, federal regulatory and state resource agencies, business and community leaders, organizations, and individuals for taking the time to review the AFTT Draft EIS/OEIS, attend the public meetings, and submit comments on the AFTT Draft EIS/OEIS. Public informational meetings and public participation are an essential aspect of the environmental review process. This appendix contains a summary of the comments received on the Draft AFTT EIS/OEIS and the Navy's responses.

H.2 PUBLIC COMMENT PERIOD FOR THE DRAFT ENVIRONMENTAL STATEMENT/OVERSEAS ENVIRONMENTAL IMPACT STATEMENT

The public comment period on the AFTT Draft EIS/OEIS began with the issuance of the Notice of Availability and a Notice of Public Meetings in the Federal Register on 30 June 2017. A correction of the Notice of Availability was issued on 7 July 2017 (Appendix G, Federal Register Notices). The public comment period began on 30 June 2017 and concluded on 29 August 2017. The Navy made significant efforts to notify the public to ensure maximum participation during the public comment period using signed letters, post cards, press releases and newspaper daily advertisements (Chapter 8, Public Involvement and Distribution). An email announcement was sent to the project website email distribution list announcing the availability of the Draft EIS/OEIS for public review and the public meetings.

The Notice of Public Meetings included a project description and dates and locations of the five public meetings. The public comment period allowed a variety of opportunities for the public to comment on the Draft EIS/OEIS (Appendix G, Federal Register Notices). Copies of the Draft EIS/OEIS were originally provided to 27 libraries along the east and Gulf coasts (see Chapter 8.0, Public Involvement and Distribution). After the Notice of Public Meetings was published in the Federal Register, the Navy submitted a copy of the Draft EIS/OEIS to two additional libraries, one in Key West, Florida per the request of the Naval Air Station Key West Public Affairs Officer and the other in Cape Cod, Massachusetts per request by a private citizen. The Draft EIS/OEIS was also available on the project website for review. Navy representatives were available during the open house public meetings to provide information and answer questions one-on-one. Comment sheets and a voice recorder were available to attendees. Commenters provided their input on the Draft EIS/OEIS in letters submitted through mail, written comments received at the public meetings, and via the project website.

H.2.1 COMMENTERS, COMMENTS AND RESPONSES

This appendix contains a list of the agencies (Table H.2-1) and private entities (Table H.3-1) that commented on the Draft EIS/OEIS and a comment matrix with Navy responses associated with the comments received (Table H.3-2). Scanned copies of comment letters (with the Commenter Identification Number assigned) are available on the project website (<http://aftteis.com>).

H.2.1.1 Comment Response Process

The Navy considered and responded to all comments received on the Draft EIS/OEIS, as detailed in this Final EIS/OEIS. The Navy's responses to comments received during the public comment period are included in this Appendix. In accordance with 40 Code of Federal Regulations (CFR) 1503.4, comments were assessed and responded to as follows:

- The Navy project team read and carefully reviewed all comments received. Each comment was assigned to a resource-specific specialist from the Navy's interdisciplinary team.
- Within each comment submittal, substantive comments were identified for consideration of possible updates to the EIS/OEIS analysis. Generally, substantive comments included items such as questions related to the alternatives analysis and components of the Proposed Action; resource-specific methodology, analysis, or impact conclusions; or the use, adequacy, or accuracy of data used to support the analysis.
- The EIS/OEIS analysis was updated as warranted based on comment review.
- Comment responses were developed for every comment based on the above-described comment review and Final EIS/OEIS update process. Responses identify, as appropriate, sections of the Final EIS/OEIS where revisions were made or details on where additional information is provided within the Final EIS/OEIS.

H.2.1.2 Agency, Organization and Private Individual Comment Coding

Comments were received from 7 federal agencies, 31 state agencies, 7 local/regional government agencies, 5 non-governmental organizations, 2 tribal governments, 1 commercial group, and 63 private individuals.

H.2.1.3 Agency and Organization Comment Coding

Table H.2-1 lists the agencies and organizations that submitted comments during the comment period. This table lists each comment by the Commenter Identification Number and where in the Comment Response Matrix (Table H.3-2) their comment and response can be found using a comment reference number. For example, a comment letter from a federal agency could have 10 comments within it. To organize responses, each commenter received a Commenter Identification Number and each comment within the letter was numbered (e.g., F01-01) is the first comment in the letter from the Army Corps of Engineers. A list of all of the Commenter Identification Numbers assigned and the corresponding comments can be found on the project website (<http://aftteis.com>).

Table H.2-1. Agencies and Organizations Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement

<i>Commenter ID</i>	<i>Commenting Agency/Organization</i>	<i>Table H.3-2 Comment Reference Number</i>
<i>Federal Agencies (F)</i>		
F01	Army Corps of Engineers	141, 186
F02	Department of the Interior	51, 73, 74, 75, 76, 77, 141, 150, 151, 152
F03	Environmental Protection Agency	141
F04	Federal Aviation Administration	7, 14, 141

Table H.2-1. Agencies and Organizations Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (continued)

<i>Commenter ID</i>	<i>Commenting Agency/Organization</i>	<i>Table H.3-2 Comment Reference Number</i>
F05	Marine Mammal Commission	52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 78, 79, 80
F06	NASA Kennedy Space Center	2
F07	National Oceanic and Atmospheric Administration – Office of Coastal Survey	62
State Agencies (S)		
S01	Alabama Historical Commission	8, 141
S02	Delaware Coastal Management Program	81, 82, 83, 177, 192, 193
S03	Florida Division of Historical Resources & State Historic Preservation Officer	15, 142
S04	Florida Fish and Wildlife Conservation Commission	16, 17, 84, 85
S05 ³	Georgia Department of Natural Resources	5, 18, 19, 20, 63, 85, 86, 87, 88, 143, 144, 154, 155, 156, 157, 158, 159, 160, 191, 192, 194, 195, 196, 197, 198, 199, 213, 214
S06	Georgia State Historic Preservation Office	142
S07	Louisiana Department of Natural Resources	144, 161
S08	Maine Historic Preservation Commission	141
S09	Maryland Department of Natural Resources	21, 22, 23
S10	Maryland Environmental Service	141
S11	Maryland State Clearinghouse	1, 141
S12	Massachusetts Port Authority	2
S13	Mississippi Department of Archives and History; Historic Preservation Division	141
S14	Mississippi Department of Marine Resources	2, 5, 24, 168, 177
S15	New Hampshire Department of Environmental Services	13, 25, 26, 27
S16	New Jersey Department of Environmental Protection	142, 145
S17	New York State Department of Environmental Conservation	6, 28, 89, 90, 91, 162, 192, 200, 201
S18	New York State Military and Naval Affairs	1
S19	North Carolina Department of Environmental Quality	5, 92, 103, 163, 164, 182, 183, 186, 202
S20	North Carolina Division of Parks and Recreation	165
S21	North Carolina Military Affairs Commission	2, 141
S22	North Carolina State Environmental Review Clearinghouse	1
S23	North Carolina Wildlife Resources Commission	1, 93, 94
S24	South Carolina Department of Health and Environmental Control	64, 176, 177, 203
S25	South Carolina Department of Natural Resources	95, 96, 141, 208
S26	Texas Commission on Environmental Quality	13, 141, 184
S27	Texas Historical Commission	142
S28	Texas Parks and Wildlife Department	97, 98, 99, 185
S29	Virginia Department of Environmental Quality	13, 100, 141, 144, 146, 147, 148, 166, 175
S30	Virginia Department of Military Affairs	141
S31	Virginia Port Authority	2

Table H.2-1. Agencies and Organizations Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (continued)

<i>Commenter ID</i>	<i>Commenting Agency/Organization</i>	<i>Table H.3-2 Comment Reference Number</i>
Local/Regional Government Agencies, Officials and Representatives (L)		
L01	City of Cape Canaveral	1
L02	City of St. Mary's, Georgia	2
L03	Representative Diana Urban – 43 rd Assembly District of Connecticut	5, 65, 177
L04	Town of Barnstable, Hyannis, MA	2, 208
L05	Town of Nags Head, NC	5, 101, 215
L06	Town of Pine Knoll Shores, NC	1
L07	Town of South Kingston, RI	2
Organizations (O)¹		
O01	American Friends Service Committee, South East New England	3, 5, 13, 175, 177, 186, 209, 211
O02	Mid-Atlantic Fishery Management Council	2, 35, 81, 104, 105, 106, 181, 210
O03 ²	Natural Resources Defense Council	36, 37, 38, 39, 40, 41, 42, 43, 44, 55, 66, 67, 68, 69, 70, 71, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 153, 173, 174, 187, 188, 189, 190, 204
O04	New England Fishery Management Council	45, 46, 47, 103, 133, 134, 135, 136, 175, 177, 180, 186, 205, 212
O05	Save The Bay	48, 49, 50, 137, 138, 139, 140, 206, 207
Native American Tribes (N)		
N01	Delaware Nation	2, 149
N02	Seminole Tribe of Florida	2, 149
Commercial Business		
C01	Seafreeze Ltd	2, 72, 177, 178, 179, 211, 212

¹ These private individuals submitted comments that referenced an organization that is not listed here: OTOCY (350.org), CURWH (Honor the Earth), FOWOR (Savannah Navy League), DIAJO (Zero Geo Engineering), EDDJU (Berkshire Environmental Action Team), ELLDA (Maine VFP), and TIPRE (Center for Cultural Evolution). These individuals' comments are addressed in table H.3-2. See table H.3-1 for the location of the response.

² Natural Resources Defense Council submitted comments on behalf of the following organizations: Animal Welfare Institute, Humane Society of the United States, Cetacean Society International, Ocean Mammal Institute, and Citizens Opposing Active Sonar Threats.

³ In addition to two letters received from the Georgia Department of Natural Resources in response to the request for comment on the current AFTT EIS/OEIS, the Georgia Department of Natural Resources also provided past letters from 2013. Issues raised in the 2013 letters were incorporated into the previous AFTT EIS/OEIS and are also addressed in the current document. We are only responding to issues raised from the 2017 letters in this Final EIS/OEIS.

H.2.1.4 Private Citizen Comment Coding

In order to keep personally identifiable information private and to allow commenters to find their comments in this appendix, the Navy assigned each comment a code based on components of the commenter's name. Personally identifiable information include an individual's name, physical address, email address, or place of employment. Table H.2-2 lists the Commenter Identification Number for private individuals who submitted comments during the comment period. This table lists each comment by the Commenter Identification Number and where in the Comment Response Matrix (Table H.3-2) their comment and response can be found using a comment reference number. Individuals who commented on the Draft EIS/OEIS during the public comment period may find their comments using the following method:

- Each individual commenter was assigned a five-digit code (AAABB) that corresponds with their first and last name. "AAA" is the first three letters of the commenter's last name; "BB" is the first two letters of their first name. If more than one person has the same code then a number was added to the end of the five-digit code to designate multiple commenters (AAABB1 and AAABB2). If the commenter submits multiple comments within a letter, then a sequential number was assigned to each comment in the letter beginning with 01 and increases with each comment received from that individual. For example, the first comment received from an individual named John Doe would have the comment code DOEJO-01.
- Special cases:
 - For instances where limited information is provided, a lower case "x" is used in place of letters or numbers. Examples include instances in which only a last name is provided, such as "Doe," and the resulting comment code would be DOExx. Similarly, if only the first name "John" is provided, the comment code would be xxxJO. If a first or last name is too short to fill in the code (i.e., three letters for the last name or two letters for the first name), a lower case "x" is also used. For example, if the commenter is J Doe, the comment code would be DOEJx.
 - When a comment is submitted with no name or the commenter wrote "anonymous," the comment is coded ANONY and the single-digit numbers increase sequentially. For example, if multiple individuals submit comments without providing a name then the comment codes would be ANONY1, ANONY2, and ANONY3.

Table H.2-2. Private Individual Comment Response Index

<i>Commenter Identification Number</i>	<i>Table H.3-2 Comment Reference Number</i>	<i>Commenter Identification Number</i>	<i>Table H.3-2 Comment Reference Number</i>	<i>Commenter Identification Number</i>	<i>Table H.3-2 Comment Reference Number</i>
ANONY1	3	FOLMA	3, 5	MCGKA	3, 5
ANONY2	3	FOWOR	2	MCGSA	3, 5, 34, 170, 175
ANONY3	3, 5	FRISU	3, 5, 186	NAPSA	3, 5, 211
ANONY4	2, 5, 9	GAGBR	3, 5, 186, 199, 211	ODENA	3, 5
ANONY5	2	GALEV	3, 5, 170	OTOCY	3, 5
ARRRI	200	GERGR	3, 5	PATEL	3, 5
AUBMA	3, 186, 211	GOLDO	3	PETJU	2
BEHLA	3	GRACR	3, 5	RAYSU	3, 5, 13, 177
BENST	5	HAISA	3, 5	SCHRI	2
BREWE	3, 5	HANDA	3, 5	SMICH	2
BUCBE	3, 10	HARAM	3, 5	SNOBA	3, 211
BYRRU	2	HOPCH	3, 5, 169, 211	SPEJA	3, 5, 171
COEPH	4, 5, 175, 177, 186, 211	HUBWI	2	STATE	2
CURWH	3, 5	JEWSU	3, 5	STEHE	3, 5
DEERO	2	KAPJO	3	TIPRE	5
DIAJO	5, 11, 186	KUNJE	3, 5, 103, 168	TUCLI	3, 5
DOWDA	2, 12, 28, 29, 30, 31, 32, 33	LAMRE	3, 5	UTTRI	3, 5
DREJA	3	LEPSH	3, 5, 186	VENPA	3, 5, 211
EDDJU	3, 5	LLOGA	3, 5, 13	WATAN	3
ELLDA	5	LOVST	5	WRITH	2
FARLA	3, 5	MAREU	103, 167	xxxJO	13, 172, 211

¹ See section 2.1.2.2, Private Citizen Comment Coding, for an explanation of the commenter identification numbers methodology.

H.3 COMMENT RESPONSES

Responses to all comments received on the Draft EIS/OEIS are included in this section. Comment responses are organized by topic category. Tables H.2-1 and H.2-2 provides commenters the location in Table H.3-1 where their comments are addressed. Many of the comments received during the Draft EIS/OEIS public comment period can be grouped into larger categories. In these instances, the comments are summarized and a response is provided for the entire category. A copy of all of the comments received during the Draft EIS/OEIS public comment period is provided on the project website

(<http://aftteis.com>). Some comments require a more detailed response. In these cases, the entire comment is provided in Table H.3-1 with a response specific to that comment. Many of the comment responses refer to sections of the Final EIS/OEIS or the associated technical reports. The Final EIS/OEIS and the technical reports are located on the project website.

Table H.3-1. Comment Response Matrix

Reference Number	Commenters	Comment	Response
No comment			
1	<u>Local/Regional:</u> L01-01, L06-01 <u>State:</u> S11-02, S18-01, S22-01, S23-03	Six comments explained that they did not have a comment on the Proposed Action.	Thank you for your review.
Support of the Navy/Proposed Action			
2	<u>Federal:</u> F06-01 <u>State:</u> S12-01, S14-01, S21-02, S21-04, S21-07, S31-01 <u>Local/Regional:</u> L02-01, L04-01, L07-01 <u>Organization:</u> O02-01 <u>Native American Tribes:</u> N01-01, N02-01 <u>Commercial:</u> C01-01 <u>Individuals:</u> ANONY4-01, ANONY5-01, BYRRU-01, DEERO-01, DOWDA- 08, FOWOR-01, HUBWI-01, PETJU-01, SCHRI-01, SMICH-01, STATE-01, WRITH-01	26 comments expressed support for the Navy and/or the Proposed Action.	Thank you for your participation in the National Environmental Policy Act process. Your comment is part of the official project record.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
Against Navy/Proposed Action			
3	<p><u>Organization:</u> O01-01, O01-02a, O01-05, O01-06a, O01-10a</p> <p><u>Individuals:</u> ANONY1-01, ANONY2-02, ANONY3-01, ANONY3-02b, AUBMA-01, BEHLA-01, BREWE-02, BUCBE-02, CURWH-01, DREJA-01, EDDJU-01, FARLA-01b, FOLMA-02, FOLMA-03, FRISU-01, GAGBR-02, GALEV-01, GERGR-01a, GERGR-02, GOLDO-01, GRACR-01, HAISA-01a, HANDA-01, HARAM-01a, HARAM-02b, HOPCH-01b, HOPCH-02, JEWSU-01a, KAPJO-01, LAMRE-01b, KUNJE-03a, LEP SH-03, LLOGA-03, MCGKA-01b, MCGSA-04, NAPSA-02b, ODENA-01b, OTOCY-01, PATEL-01b, RAYSU-01, SNOBA-01, SPEJA-02a, SPEJA-04, STEHE -01a, TUCLI-02, UTTRI-01, VENPA-01a, WATAN-01</p>	53 comments expressed opposition to the Navy and/or the Proposed Action.	Thank you for your participation in the National Environmental Policy Act process. Your comment is part of the official project record. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
4	<u>Individuals:</u> COEPH-01, COEPH-06	Two comments expressed concern that the Navy was conducting “war games”.	Thank you for your participation in the National Environmental Policy Act process. The Navy developed the alternatives considered in this Final EIS/OEIS after careful assessment by subject matter experts, including military units and commands that utilize the ranges, military range management professionals, and Navy environmental managers and scientists. These alternatives were approved by senior Navy leadership. The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.4 (Action Alternative Development) for more detailed information on the development of alternatives. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades.
<i>Potential impact to marine life</i>			
5	<u>State:</u> S05-37, S14-02a, S19-01, <u>Local:</u> L03-03, L05-01 <u>Organization:</u> O01-06b <u>Individuals:</u> ANONY3-02a, ANONY4-03, BENST-01, BREWE-01, BREWE-03, COEPH-04a, CURWH-02, DIAJO-02, EDDJU-02, ELLDA-01, FARLA-01a, FOLMA-01, FRISU-02a, GAGBR-01a, GALEV-02, GERGR-01b, GRACR-02,	48 comments expressed concerns regarding potential impact to marine species and environment from the proposed activities. These include both generalized concern as well as concerns regarding specific species and activities.	The Navy is concerned for marine life. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the Final EIS/OEIS. Also, as described in Chapter 5 (Mitigation) of the Final EIS/OEIS, the Navy implements mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing for decades in the sea space depicted in the Study Area with no long-term consequences or population-level impacts to marine species. The Navy consulted with the appropriate federal and state regulators regarding applicable environmental statutes.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
5 (cont.)	HAISA-01b, HANDA-02, HARAM-01b, HARAM-02a, HOPCH-01a, JEWSU-01b, KUNJE-03b, LAMRE-01a, LEPSH-01a, LLOGA-02, LOVST-01, MCGKA-01a, MCGSA-01a, NAPSA-02a, ODENA-01a, OTOCY-02, PATEL-01a, RAYSU-03a, SPEJA-01, SPEJA-02b, STEHE -1b, TIPRE-01, TUCLI-01, UTTRI-02, VENPA-01b		
6	<u>State:</u> S17-01	The Department's primary concerns regarding effects of training and testing in the 2.6 million square nautical mile AFTT Study Area are that the impacts are broad and wide- ranging, and include New York waters. The large scope has many significant direct and indirect effects on the marine environment and species, and covers a wide spectrum of impacts including ship strike, multiple acoustic impacts, entanglement, and ingestion. In recent years, New York State has seen an increased number of dead or dying whales along our shoreline. The primary cause of death of beached and washed-ashore marine mammals has been blunt trauma as a result of ship strike and/or entanglement by marine debris. There is potential that training and testing activities may drive marine mammal and sea turtle species into the New York Bight, increasing the risk for serious injury and mortality from interaction with human activity.	Thank you for your concern. There is no evidence that Navy training and testing activities drive marine mammals and sea turtle species into the New York Bight. The analysis and conclusions for the potential impacts to marine mammals from each of the individual stressors are discussed in Sections 3.7.3.1 (Acoustic Stressors) through 3.7.3.6 (Ingestion Stressors) and the potential impacts to turtles from each of the individual stressors are discussed in Sections 3.8.3.1 (Acoustic Stressors) through 3.8.3.6 (Ingestion Stressors). As stated in these sections potential impacts to marine mammals or turtles from the proposed testing and training activities is not expected to lead to long-term consequences for populations.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
<i>Concerns about activities/areas that are outside of the proposed action</i>			
7	<u>Federal:</u> F04-10	The Federal Aviation Administration expressed concern over any potential impacts to airspace.	Thank you for your response. The Navy is not proposing any construction or changes to airspace in support of the training covered in this document. Any pertinent Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) matters will be handled separately through the appropriate coordination channels in a timely manner.
8	<u>State:</u> S01-02	Should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. Artifacts are objects made, used or modified by humans. They include but are not excluded to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicate disturbance by human activity. Some examples are post holes, building foundations, trash pits and even human burials. This stipulation shall be placed on the construction plans to insure contractors are aware of it.	Thank you for your participation in the National Environmental Policy Act process. The Proposed Action does not include activities, such as construction, that would impact archaeological features. Please see Chapter 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a definition of the scope of the project.
9	<u>Individual:</u> ANONY4-02	If I was a terrorist I'd be following the path of the whales sonar isn't being blasted that way. I hope that the navy is able to immediately "stand down" if something horrible is revealed while testing new technology and the xxxxx is not bogged down in paperwork. I wish the results of some of these tests were not classified. If they are classified I hope there is a reasonable wait period to declassify; like within my lifetime.	Thank you for your participation in the National Environmental Policy Act process. The Navy developed the alternatives considered in this Final EIS/OEIS after careful assessment by subject matter experts, including military units and commands that utilize the ranges, military range management professionals, and Navy environmental managers and scientists. The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.4 (Action Alternative Development) for more detailed information on the development of alternatives.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
10	<u>Individual:</u> BUCBE-01	Seismic testing and the drilling which is sure to follow, if anything is found, would be terrible. Marine life and the local tourist industry, which accounts for most of Charleston's and South Carolina's economy, could be devastated.	The Navy is not proposing any seismic activities as part of the proposed action. Please see Chapter 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a definition of the scope of the project. The Navy strives to conduct training and testing activities in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions (Section 3.11, Socioeconomics). Because the proposed activities would not lead to a noticeable change in Navy presence, and because the proposed locations for these activities do not differ much from historical use, it is unlikely that commercial and recreational activities would be noticeably affected by Navy activities requiring area restrictions.
11	<u>Individual:</u> DIAJO-01	Are these exercises exclusively American, or is the UN and NATO also involved? If not, who is leading?	Thank you for your participation in the National Environmental Policy Act process. All exercises associated with the Proposed Action are led by the U.S. Navy. Some activities will involve partner nations and allies.
12	<u>Individual:</u> DOWDA-07	The cumulative impacts section would be improved if it included a worst case scenario example and this would carry over into the socioeconomic consequences. I don't know what the worst case scenario might be, but it could include ship board explosions or ship collisions and release of fuels/toxic chemicals.	Thank you for your participation in the National Environmental Policy Act process. The National Environmental Policy Act does not require an agency to analyze speculative worst case scenarios. Rather, the focus of this EIS/OEIS is analysis of the reasonably foreseeable impacts of the Navy's proposed activities. This includes analyzing public health and safety, which are discussed in Section 3.12, including the standard operating procedures that the Navy implements to ensure the safety of its training and testing activities, as well as the reasonably foreseeable impacts from discharges associated with training and testing. Additional information is included in Section 3.1 Air Quality, and Section 3.2 Sediments and Water Quality.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
13	<u>Individual:</u> LLOGA-01, RAYSU-02, xxxJO-03 <u>Organization:</u> O01-04, O01-11b, <u>State:</u> S15-03, S15-04, S26-02, S29-15	Nine of the comments submitted discussed activities outside of the scope of the Proposed Action. These comments discuss concerns about terrorism, Navy facilities and training at locations not covered in this document and a wide variety of other concerns.	Thank you for your participation in the National Environmental Policy Act process. The Proposed Action does not include these activities. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades. Please see Chapter 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a definition of the scope of the project.
Corrections/Typos/other errors in document			
14	<u>Federal:</u> F04-01, F04-02, F04-03, F04-04, F04-05, F04-06, F04-07	The Federal Aviation Administration provided revisions to the text in the EIS/OEIS.	Thank you for your participation in the National Environmental Policy Act process. The Navy has revised the Final EIS/OEIS per your request.
15	<u>State:</u> S03-02	The Florida Division of Historical Resources & State Historic Preservation Officer provided a correction to section 3.10.	Thank you for your review. The Final EIS/OEIS has been revised to include the correct reference number Section 5.4.1 (Mitigation Areas for Seafloor Resources) instead of Section 5.4.5.
Inclusion of Additional Science			
16	<u>State:</u> S04-01	The DEIS cites a “minimum number alive population index” for North Atlantic right whales during 1990-2010 that suggests a mean annual population growth rate of 2.8 percent. More recent information suggests that the population growth rate, reproductive rates, and health indices have declined for right whales in recent years, and may be below the rate identified in the DEIS (Kraus et al. 2016, Pettis and Hamilton 2016, Rolland et al. 2016).	Section 3.7.2.2.2.3 (Population Trends) of the Draft EIS/OEIS presented data from the most recent National Oceanic and Atmospheric Administration (NOAA)'s National Marine Fisheries Service (NMFS) Stock Assessment Report available at the time of Draft EIS/OEIS publication on North Atlantic right whale population trends, citing a mean growth rate of 2.6 percent. The information presented in the Draft EIS/OEIS is consistent with the information included in the NMFS 2015 Proposed Rule to expand critical habitat (80 FR 9314). The Navy updated the Final EIS/OEIS with new information on population trends if new NMFS Stock Assessment Reports became available. The Navy reviewed the literature suggested by Florida Fish and Wildlife Conservation (FWC) and incorporated into the Final EIS/OEIS as appropriate.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
17	State: S04-02	Additionally, human-caused mortality and serious injuries for right whales exceed Potential Biological Removal (Waring et al. 2016). Year-to-date, at least thirteen mortalities and four new entanglement cases have been observed for right whales.	As discussed in Section 3.7.3 (Environmental Consequences), the Navy does not anticipate any serious injuries or mortalities to North Atlantic right whales; therefore the Navy will not contribute to the exceedance of Potential Biological Removal. In addition to procedural mitigation, the Navy also developed mitigation areas (see Section 5.4, Mitigation Areas to be Implemented) to further avoid potential interactions between training and testing activities and North Atlantic right whales.
18	State: S05-01	In 2009 the Navy implemented a Right Whale Distribution Study. However, results of this study have not been provided, either in the AFTT DEIS/DOEIS or associated appendices or through other direct submission to GaDNR. Results of this work are needed in order to assess the potential impacts of AFTT activities on right whales.	Long-term passive acoustic monitoring has been occurring in the JAX OPAREA, and the results of the monitoring are presented on the NMFS Office of Protected Resources web site and the Navy's Marine Species Monitoring web site (http://www.navy-marine-species-monitoring.us/). Information from the AFTT monitoring program has been incorporated into the Final EIS/OEIS.
19	State: S05-43	We appreciate the Navy's use of revised marine mammal density maps in AFTT Phase III. Accurate density maps should improve the accuracy of take estimates and enhance mitigation efforts. Unfortunately, the current NARW model (Roberts et al. 2016) did not include Early Warning System (EWS) aerial survey data, which are the primary NARW data source for the Southeast U.S. Therefore, the NARW density estimates and resulting take estimates may be inaccurate. For example, the current model shows higher densities of NARWs in the Southeast U.S. in April than in December, which is inconsistent with decades of field observations.	The North Atlantic Right Whale model that predicted higher density in the species' core habitat area (e.g. Southeast U.S.) was selected as a precautionary measure to ensure take estimates would err on the high side until models are improved. The current North Atlantic Right Whale model did not produce higher density predictions in April compared to December for the Southeast U.S. Based on the model, density is higher in December, with predictions reaching up to 46 animals/100 km ² off the Southeast coast compared to April, which had predictions reaching up to 3.2 animals/100 km ² off the Southeast coast. Please refer to the 2017 technical report titled <i>U.S. Navy Marine Species Density Database Phase III for the Atlantic Fleet Training and Testing Study Area</i> (http://aftteis.com/Current-Documents) or the website, http://seamap.env.duke.edu/models/Duke-EC-GOM-2015/ , for further information on the North Atlantic Right Whale model.
20	State: S05-44	Unfortunately, the current NARW model (Roberts et al. 2016) did not include EWS aerial survey data,	The best available science and data was used to prepare both the Draft and Final EIS/OEIS and will be used in Endangered Species

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
20 (cont.)		<p>which are the primary NARW data source for the Southeast U.S. Therefore, the NARW density estimates and resulting take estimates may be inaccurate. For example, the current model shows higher densities of NARWs in the Southeast U.S. in April than in December, which is inconsistent with decades of field observations. Roberts et al. are revising the model to include EWS aerial survey data which will increase the number of NARW sightings in the Southeast U.S. portion of the model 100-fold. The revised model should be complete by September 2017 (T. Gowan and J. Roberts, <i>pers. comm.</i>) We recommend that the Navy recalculate NARW take estimates with the revised model and provide updated results in the Final EIS.</p>	<p>Act and Marine Mammal Protection Act consultations with NMFS.</p>
21	<p><u>State:</u> S09-01</p>	<p>Maryland has and is funding the following three surveys and we encourage the U.S. Navy to consider this new data and information in its AFTT Draft EIS/OEIS:</p> <ol style="list-style-type: none"> 1. Aerial surveys to collect data on presence, density and seasonality of large whale species were conducted along the coastal waters of Maryland from July 2013 to June 2015. There were twenty-four surveys over 16,579 km of track-line. Here are a few highlights: <ol style="list-style-type: none"> a. 23 large whale groups sighted (9 fin whale, 2 humpback, 1 minke whale, 8 right whale and 3 unidentified whales); b. 417 bottlenose dolphin groups sighted and 36 groups of other dolphin species (25 common dolphin groups, 1 spotted dolphin group, 10 unidentified dolphin groups); and 	<p>Data from multiple surveys, including aerial surveys from the Northeast Fisheries Science Center (NEFSC) and the Southeast Fisheries Science Center (SEFSC), and a shipboard survey from SEFSC, were used for the Phase III models and these surveys included track lines that covered most of, if not all of, the Maryland (MD) Wind Energy Area (WEA) survey area. . However, the Maryland MD WEA 2013-2015 aerial survey effort data was not used for the density models included in the AFTT Draft EIS/OEIS for several reasons. The MD WEA aerial data for the entire 2013-2015 period was received by Duke University (contractors for the Navy density modelling effort) as a single batch from Virginia Aquarium on 21 October 2015. The end of September 2014 was the last possible deadline the Duke University density modelling team could accept new data for density models that would be used for analysis in the AFTT Draft EIS/OEIS. Due to the late receipt of the data, refitting the models to include these MD aerial survey data was not feasible without incurring months of work that would also then have</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
21 (cont.)		c. 809 loggerhead turtle sightings and 142 sightings of other turtle species (45 green, 14 leatherback, 1 Kemp's and 82 unidentified). The study was conducted by the Virginia Aquarium and Marine Science Center and the Riverhead Foundation for Marine Research and Preservation.	affected the acoustic modelling timeframe. Because, the MD WEA project survey area was included in other surveys conducted by NEFSC and SEFSC, the inclusion of this data would not result in an appreciable change to the density model. The Duke University density modelling team has incorporated MD WEA 2013-2015 aerial survey data in the updated density models for the East Coast species that are currently under development and will be used in later Navy environmental compliance documents on the East Coast of the U.S.
22	<u>State:</u> S09-02	2. Maryland is cost-sharing a study with the Bureau of Ocean Energy Management (BOEM) to collect acoustic data to: a. characterize patterns of temporal and spatial occurrence of vocalizing marine mammal species (including right whales, fin whales, humpback whales, minke whale and any small cetacean species); and b. characterize the existing ambient noise environment in and around the Maryland WEA. The project is being undertaken by the University of Maryland Center for Environmental Science and the Bioacoustics Research Program at Cornell University and is still ongoing with preliminary information and data available upon request.	The Navy has corresponded with the study's principal investigator and has reviewed the available data. The Navy will continue to stay apprised of the study as it progresses.
23	<u>State:</u> S09-03	3. Maryland provided funds to the Biodiversity Research Institute to expand their ongoing work with the U.S. Department of Energy (DOE) to: a. assess wildlife distribution and abundance patterns and examine temporal variation in these patterns;	During the development of the Draft EIS/OEIS, the Navy reviewed the information presented on http://www.briloon.org/mabs (based on a public scoping comment received from Delaware Natural Resources and Environmental Control). Following a review of the documents it was decided that the information provided in the reports did not add more relevant species-specific information than was already included in the relevant species sections. The Navy re-evaluated the referenced information and that

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
23 (cont.)		<p>b. development of statistical models to identify ecological drivers of these patterns and predict important habitat and aggregation areas; and</p> <p>c. identification of species likely to be exposed to offshore wind energy development or other anthropogenic activities.</p> <p>Maryland funded an extension of the DOE-funded surveys that included the expansion of existing boat surveys into Maryland state waters, the extension of video aerial surveys into areas west and south of the Maryland Wind Energy Area; and an extra aerial survey in Maryland waters. Key findings can be found in the Figures section at the end of this document. A copy of the final published reports and this work may be found online at: http://www.briloon.org/mabs. There are both Mid-Atlantic- and Maryland-scale data and reports on this website.</p>	<p>applicable relevant information has been incorporated in the Final EIS/OEIS. The Navy incorporated the information presented on http://www.briloon.org/mabs into the Final EIS/OEIS Sections 3.6.2.1.5 (Fishes), 3.7.2.1.5 (Marine Mammals), 3.8.2.1.5 (Reptiles), and 3.9.2.1.5 (Birds and Bats).</p>
24	<u>State:</u> S14-04	<p>More information about the proposed activities and locations would allow the MDMR to properly evaluate the risks to our marine resources. We believe that successful management is measured by sustainability as well as by accessibility though understanding and communication. Feel free to contact me with any additional information.</p>	<p>Appendix A (Navy Activity Descriptions) provides the activities that may occur within the AFTT Study Area. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the Final EIS/OEIS. Also, as described in Chapter 5 (Mitigation) of the Final EIS/OEIS, the Navy implements mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing for decades in the sea space depicted in the Study Area. Regarding impacts to Mississippi coastal resources, the Navy has consulted with the state of Mississippi through the Coastal Zone Management Act and received concurrence, see Appendix J (Agency Correspondence).</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
25	State: S15-01	As suggested in November 2015, NHDES recommends that the Department of the Navy review the ocean use and resource data available at the Northeast Ocean Data Portal (www.northeastoceandata.org) during the development of the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS). The Northeast Ocean Data Portal is an information resource and decision support tool that provides access to maps, data, tools, and information for ocean planning from the Gulf of Maine to Long Island Sound.	Within the AFTT Study Area, the Northeast and Mid-Atlantic Regional Planning Bodies developed Plans that were certified by the National Ocean Council in December 2016. In those Plans, the Department of Defense committed to using the Plans and Regional Data Portals to inform pertinent environmental programs, initiatives, and planning documents. The Regional Ocean Plans and Data Portals were used as a resource throughout the development of this Final EIS/OEIS.
26	State: S15-02	The comments formerly submitted by the NHDES Air Resources Division in response to the January 2016 Preliminary Request noted that the analysis should be expanded to consider the impacts of: 1) emissions from ships included in training and testing while at port and near shore;	<p>Emissions from ships operating nearshore have been included in the analysis, to cover 0-3 nautical miles from shore. They have been identified by the Range Complex. Emissions off the coast of New Hampshire would fall under the Northeast Range Complex, which includes three OPAREAS that encompass some or all of the offshore state waters of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey. Vessel Steaming Hours by State vs International Waters is quite small for the Northeast Range Complex, as can be seen in the Appendix C (Air Quality Emissions Calculations and Record of Non-Applicability), Tab D (Ship Emissions).</p> <p>While it is impossible to estimate what percentage of vessel transits could possibly occur in the state waters of New Hampshire, it is reasonable and conservative to consider all vessel transits in state waters in the Northeast Range Complex to occur in New Hampshire state waters in order to assess whether or not there would be any impact.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
27	<u>State:</u> S15-03, S15-04	Two comments expressed concern over emissions from on-road and in-port activities.	Thank you for your participation in the National Environmental Policy Act process. The Proposed Action does not include these activities. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades. Please see Chapter 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a definition of the scope of the project.
28	<u>Individual:</u> DOWDA-01 <u>State:</u> S17-08	Two comments expressed concern that the Navy does not take into account the ongoing changes to the resources being impacted and the “shifting baseline”. New and significant noise impacts combined with an observed global shift in species regimes may cause changes in the distribution, abundance, and activities of marine life that are not fully understood.	The Final EIS/OEIS contains discussions within each biological resource section regarding climate change and how physical and biological components of the marine environment are changing. The Navy has used the best available science in its analysis of resources and cumulative impacts. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades. As a result, any substantial increases in noise within the oceans would be due to commercial shipping and other anthropogenic sources. With respect to more localized or regional concerns, the Navy has consulted with all coastal states in the Study Area on effects to their resources.
29	<u>Individual:</u> DOWDA-02	The NE ROP data portal includes much information that could add to the U.S. Navy EIS/OEIS which tends to be data, rich but information poor from my perspective as a retired scientist.	The best available science and applicable data relevant to the Draft EIS/OEIS were used in the analysis. Within the AFTT Study Area, the Northeast and Mid-Atlantic Regional Planning Bodies developed Plans that were certified by the National Ocean Council in December 2016. In those Plans, the Department of Defense committed to using the Plans and Regional Data Portals to inform pertinent environmental programs, initiatives, and planning documents. The Regional Ocean Plans and Data Portals were used as a resource throughout the development of this Final EIS/OEIS.
30	<u>Individual:</u> DOWDA-03	The U.S. Navy needs to adopt a more dynamic conceptual model for the EIS/OEIS to replace the Large Marine Ecosystem (LME) approach.	The LME concept was used in the Final EIS/OEIS to describe the current distribution of species and training/testing areas. The LME concept is recognized by NMFS, and other leading scientific organizations, and represents the best available science.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
31	<u>Individual:</u> DOWDA-04	Fisheries population dynamics models which include Essential Fish Habitat and variations in human environmental stressors could provide a way forward to evaluate the site-specific consequences of U.S. Navy Training and Testing events and the required monitoring programs of effects on wild places, wild things.	Habitat-based models of fisheries population dynamics require knowing age- and habitat- specific mortality rates from various sources and generally when/where they are occurring in terms of Essential Fish Habitat/Habitat Areas of Particular Concern. The sort of data needed to conduct a habitat-based fishery population model is not currently available for the AFTT study area. Even if the data were available, the primary sources of mortality for fishery populations are (by enormous measure) commercial and recreational fishing. The AFTT EIS/OEIS concludes that the proposed action (e.g., explosions, MEM, seafloor devices) would not result in population-level level impacts. The Navy also consulted with NMFS regarding impacts to Essential Fish Habitat from the Proposed Action. The resulting conservation measures were mostly a continuation of existing mitigation measures, with the addition of new mitigation for submerged aquatic vegetation and Habitat Areas of Particular Concern for sandbar sharks. The new mitigation measures are presented in Section 5.4.1 (Mitigation Areas for Seafloor Resources) and Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), respectively.
32	<u>Individual:</u> DOWDA-05	The EIS/OEIS document focuses on marine mammals; sea turtles and sea birds. While ignoring the important role of forage species/filter feeders.	The Final EIS/OEIS analyzes all physical and biological components of the Study Area that could be impacted by the Proposed Action. The individual resource sections include: Section 3.2 (Sediments and Water Quality), 3.3 (Vegetation), 3.4 (Invertebrates), 3.5 (Habitats), 3.6 (Fishes), 3.7 (Marine Mammals), 3.8 (Reptiles), 3.9 (Birds and Bats).

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
33	<u>Individual:</u> DOWDA-06	This document would benefit from describing some worse case scenarios and how they might be mitigated.	The National Environmental Policy Act does not impose a duty on an agency to make a "worst case scenario analysis" if it can make a reasoned assessment of a proposed project's environmental impact. The Navy focused on reasonably foreseeable impacts that generate information and discussion on those consequences of greatest concern to the public and of greatest relevance to the agency's decision, rather than distorting the decision-making process by overemphasizing highly speculative or conjectural harms.
34	<u>Individual:</u> MCGSA-03	Not enough scientific data has been provided to coastal residents to provide an educated opinion on the testing. Please allow for further study to educate the public. Please complete further studies or consider other options.	The Navy complied with the Coastal Zone Management Act regarding its impact on coastal resources. 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 Final EIS/OEIS, the Navy implements mitigation measures during its training and testing activities.
35	<u>Organization:</u> O02-05	The Mid-Atlantic Ocean Data Portal (http://portal.midatlanticocean.org /data-catalog /fishing/) has developed maps from Federally-required Vessel Trip Reports (VTRs) and Vessel Monitoring Systems (VMS) that represent the locations and intensity of commercial fishing during 2011-2014. These maps could provide additional information to support site-specific training plans. However, important fishing areas may not be fully represented as locations frequently shift annually due to factors including market dynamics, regulatory changes, and rotational fishing strategies.	As a matter of practice, the Navy typically does not conduct certain activities in coastal areas due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). For activities that could potentially be conducted in a coastal zone, the Navy implements procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented) and mitigation areas (see Section 5.4, Mitigation Areas to be Implemented). The Navy completed a full biological assessment and operational analysis of potential mitigation areas throughout the entire Study Area. Developing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives. Additionally, as discussed in Section 3.11.3.1 (Impacts on

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
35 (cont.)		In addition, staff at NOAA Fisheries Greater Atlantic Regional Office and the Fishery Management Council can be consulted for specific information about the location of fishing activities throughout the year as specific training exercises are contemplated.	Accessibility), Navy training and testing activities have the potential to temporarily change access to ocean areas for safety reasons. These areas are relatively limited in size and time, and will typically be announced by U.S. Coast Guard and Federal Aviation Administration issued Notices to Mariners and Notices to Airmen, respectively. The Navy is not proposing to add any new restricted areas and proposes to continue the same type of temporary area closures that have occurred for decades. Therefore, Navy does not foresee there will be any measurable impacts to the commercial or recreational fishing industry.
36	<u>Organization:</u> O03-26	It seems likely that the DEIS does not consider the Cul de Sac for geospatial mitigation because the AFTT Study Area excludes the OPAREA. Putting aside questions of territoriality and statutory jurisdiction, the Navy has previously made commitments to restrict its training activities in foreign locations, including in the Bahamas (where sonar use in the Providence Channels has been prohibited since the 2000 mass stranding event), for the protection of beaked whales. ⁶¹ We believe the AFTT EIS/ OEIS process is an appropriate vehicle. But regardless of whether it uses that process or, as in the case of certain other prior commitments, acts independently of NEPA and Executive Order 12114, we urge the Navy to expeditiously consider the Cul de Sac for year-round time-area management to benefit the TOTO population of Blainville's beaked whales.	The Proposed Action does not include these activities. Please see Chapter 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a definition of the scope of the project.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
37	<u>Organization:</u> O03-28	<p>While the Navy considered establishing Mitigation Areas for coastal bottlenose dolphins within a portion of the Mississippi Sound, and while the AFTT Study Area and the Navy's Gulf of Mexico Operating Areas exclude many of the Gulf's bays and inlet, it did not consider designating a Mitigation Area (outside the Mississippi Sound area it did consider) to capture waters out to the 20 m isobath, which marks the limit of the dolphins' range.</p> <p>Certain populations exhibit seasonal movements between the coastal waters of the Gulf and inshore bay, sound, and estuary habitat; and some near coastal bottlenose dolphin populations have been observed leaving the Mississippi Sound during the winter to temporarily reside outside of the barrier islands. The Navy should undertake a more thorough analysis of bottlenose dolphin habitat within the AFTT Study Area, particularly within those waters from Louisiana to western Florida that are still recovering from the Deepwater Horizon spill.</p>	<p>In its assessment of potential mitigation, the Navy considered implementing additional restrictions on active sonar and explosives in the Gulf of Mexico, including within the areas affected by the Deepwater Horizon spill. Navy operators determined that implementing additional mitigation beyond what is described in Section 5.4.4 (Mitigation Areas in the Gulf of Mexico) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives. Some of the considerations regarding why it would be impractical to implement additional mitigation in the Gulf of Mexico are provided below.</p> <p>The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within the identified mitigation areas that is practical to implement under the Proposed Action. Operational input indicates that designating additional mitigation areas (including dolphin habitat within the Deepwater Horizon spill area) would have a significant impact on the ability for units to meet their individual training and certification requirements (preventing them from deploying with the required level of readiness necessary to accomplish their missions), to meet national security tasking (limiting the flexibility of Combatant Commanders and warfighters to project power, engage in multi-national operations, and conduct the full range of naval warfighting capability in support of national security interests), on the ability of program managers and weapons system acquisition programs to meet testing requirements and required acquisition milestones; on operational costs (due to extending distance offshore, which would increase fuel consumption, maintenance, and time on station to complete required training and testing activities), on the safety risk associated with conducting training and testing at extended</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
37 (cont.)			<p>distances offshore (farther away from critical medical and search and rescue capabilities), on accelerated fatigue-life of aircraft and ships (leading to increased safety risk and higher maintenance costs), on training and testing realism (due to reduced access to necessary environmental or oceanographic conditions that replicate potential real world areas in which combat may occur), and/or on the ability for Navy Sailors to train and become proficient in using the sensors and weapons systems as would be required in a real world combat situation.</p> <p>Furthermore, the iterative and cumulative impact of all commenter-proposed mitigation areas and seasonal or temporal restrictions would deny national command authorities the flexibility to respond to national security challenges as required training necessary for deployment would entail movements to multiple operational areas along the Eastern seaboard and the Gulf of Mexico to conduct training within set time frames. Likewise, this iterative and cumulative impact would deny weapons system program managers and research, testing, and development program managers the flexibility to rapidly field or develop necessary systems due to the required use of multiple areas within limited timeframes. Additional information regarding the operational importance, significant negative impacts on Navy training and testing operations, and impracticality of implementing the mitigation area proposed by commenter in each geographic region mentioned is provided in the responses to Commenter Reference numbers 111, 116 through 119, and 121 through 123, as well as in Chapter 5 (Mitigation) of the Final EIS/OEIS.</p>
38	<u>Organization:</u> O03-31	Thus there is a need for the Navy to collect more information regarding the number, nature, and timing of testing and training events that take place within, or within close proximity to, important	The Navy does consider historic use (number and nature of training and testing activities) and locational information of training and testing activities when developing modelling boxes. The timing of training cycles and testing needs varies based on

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
38 (cont.)		habitat areas, essentially refining the scale of the analysis of operations to match the scale of the habitat areas considered to be important.	<p>deployment requirements to meet current and emerging threats. Due to the variability, the Final EIS/OEIS is structured to provide flexibility in training and testing locations, timing, and number. In addition, information regarding the exact location of sonar usage is classified. Due to the variety of factors, many of which influence locations that cannot be predicted in advance (e.g., weather), the analysis is completed at a scale that is necessary to allow for flexibility.</p> <p>The purpose of the quantitative acoustic analysis is to provide the best estimate of impact/take to marine mammals and Endangered Species Act (ESA) listed species for the Final EIS/OEIS and the regulator. Specifically, the analysis must take into account multiple Navy training and testing activities over large areas of the ocean for a five year period; therefore, analyzing activities in multiple locations over multiple seasons produces the best estimate of impacts/take to inform the Final EIS/OEIS and regulators. The scale at which spatially-explicit density models are structured is determined by the data collection method and the environmental variables that are used to build the model. A number of variables that are meaningful to marine mammal species, such as sea surface temperature, do not vary or affect species on a fine scale. Expecting fine scale resolution from the Navy's density database may force artificial granularity on species for which it is not biologically meaningful at the population-level. Therefore, given the variables that determine when and where the Navy trains and tests and the resolution of the density data, the analysis of potential impacts is scaled to the level that the data fidelity will support. This data is provided in the Final EIS/OEIS and to the regulator to determine potential impacts/take on a population of animals.</p>
39	<u>Organization:</u> O03-32, O03-33	Two comments urged the Navy to further investigate and research sonar signal modification as a potential mitigation measure.	Sonar signals are designed explicitly to provide optimum performance at detecting underwater objects (e.g., submarines) in a variety of acoustic environments. Although the Navy

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
39 (cont.)			acknowledges that this very limited data set suggests up or down sweeps of the sonar signal may result in different animal reactions, this is a very small data sample and this science requires further development. If future studies indicate this could be an effective approach, then Navy will investigate the feasibility and practicality of modifying signals, based on tactical considerations and cost, to determine how it will affect the sonar's performance.
40	<u>Organization:</u> O03-37	In addition to continuing to make funds available to support long-term monitoring studies, we recommend that, in the future, the Navy's Marine Species Monitoring Program expand funding for projects that aim to quantify the impact of Navy activities at the individual, and ultimately, population-level.	<p>The Navy established the Strategic Planning Process under the marine species monitoring program to help structure the evaluation and prioritization of projects for funding. Section 5.1.1.1.3 of the Final EIS/OEIS provides a brief overview of the Strategic Planning Process. More detail, including the current intermediate scientific objectives, is available on the monitoring portal as well as in the Strategic Planning Process report. The Navy's evaluation and prioritization process is driven largely by a standard set of criteria that help the steering committee evaluate how well a potential project addresses the primary objectives of the monitoring program. NMFS has opportunities to provide input regarding the Navy's intermediate scientific objectives as well as providing feedback on individual projects through the annual program review meeting and annual report. For additional information, please visit: https://www.navy-marine-species-monitoring.us/about/strategic-planning-process/</p> <p>Details on the Navy's involvement with future research will continue to be developed and refined by Navy and NMFS through the consultation and adaptive management processes, which regularly considers and evaluates the development and use of new science and technologies for Navy applications. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
41	<u>Organization:</u> O03-38	First, detailed, individual-level behavioral response studies, such as focal follows and tagging using DTAGs, carried out before, during, and after Navy operations, can provide important insights for these species and stocks and we encourage the Navy to expand funding for certain of these projects.	<p>In addition to the Navy's marine species monitoring program investments in the topic of individual-level behavioral response studies, the Office of Naval Research Marine Mammals and Biology program and the Navy's Living Marine Resources program continue to heavily invest in this topic.</p> <p>For example, the following studies are currently being funded:</p> <ul style="list-style-type: none"> • The Southern California Behavioral Response Study (Principal Investigators: John Calambokidis and Brandon Southall) • Cuvier's Beaked Whale and Fin Whale Behavior During Military Sonar Operations: Using Medium-term Tag Technology to Develop Empirical Risk Functions (Principal Investigators: Greg Schorr and Erin Falcone) • 3S3- Behavioral responses of sperm whales to naval sonar (Principal Investigators: Petter Kvadsheim and Frans-Peter Lam) • Measuring the effect of range on the behavioral response of marine mammals through the use of Navy sonar (Principal Investigators: Stephanie Watwood and Greg Schorr) • Behavioral response evaluations employing robust baselines and actual Navy training (BREVE) (Principal Investigators: Steve Martin, Tyler Helble, Len Thomas) • Integrating remote sensing methods to measure baseline behavior and responses of social delphinids to Navy sonar (Principal Investigators: Brandon Southall, John Calambokidis, John Durban). <p>Please visit http://greenfleet.dodlive.mil/environment/ and https://www.onr.navy.mil/Science-Technology/Departments/Code-32/All-Programs/Atmosphere-Research-322/Marine-Mammals-Biology for further information regarding these projects.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
42	<u>Organization:</u> O03-39	Recent studies using DTAGs have also been used to characterize social communications between individuals of a species or stock, including between mothers and calves; we recommend that the Navy prioritize funding studies that further characterize the suite of vocalizations related to social interactions.	<p>The Navy has funded a variety of projects that are collecting data that can be used to study social interactions amongst individuals. Examples of these projects include:</p> <ul style="list-style-type: none"> • Southern California Behavioral Response Study (Principal Investigators: John Calambokidis and Brandon Southall) • Tagging and Tracking of Endangered North Atlantic Right Whales in Florida Waters (Principal Investigators: Doug Nowacek and Susan Parks). This project involves the use of DTAGs, and data regarding the tagged individual and group are collected in association with the tagging event. In addition to the vocalization data that is being collected on the DTAGs, data is collected on individual and group behaviors that are observed, including between mother/calf pairs when applicable. The Navy will continue to collect this type of data when possible. • Integrating remote sensing methods to measure baseline behavior and responses of social delphinids to Navy sonar (Principal Investigators: Brandon Southall, John Calambokidis, John Durban.) • Acoustic Behavior of North Atlantic Right Whale (<i>Eubalaena glacialis</i>) Mother-Calf Pairs (Principal Investigators: Susan E. Parks and Sofie Van Parijs). The long-term goal of this project is to quantify the behavior of mother-calf pairs from the North Atlantic right whale to determine a) why mothers and calves are more susceptible to collisions with vessels and, b) determine the vocal behavior of this critical life stage to assess the effectiveness of passive acoustic monitoring to detect mother-calf pairs in important habitat areas (see https://www.onr.navy.mil/reports/FY15/mbparks.pdf.) <p>Social Ecology and Group Cohesion in Pilot Whales and their Responses to Playback of Anthropogenic and Natural Sounds</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
42 (cont.)			(Principal Investigator: Frants H. Jensen). This project investigates the social ecology and cohesion of long-finned pilot whales as part of a broad multi-investigator research program that seeks to understand how cetaceans are affected by mid frequency sonar and other sources of anthropogenic noise (see https://www.onr.navy.mil/reports/FY15/mbjensen.pdf).
43	<u>Organization:</u> O03-40	We recommend that the Navy make funds available to use these technologies for assessing marine mammal behavior before, during, and after Navy operations (e.g. swim speed and direction, group cohesion). In addition, studies into how these technologies can be used to assess body condition should be supported as this can provide an important indication of energy budget and health, which can inform the assessment of population-level impacts.	<p>Studies that use unmanned aerial vehicles to assess marine mammal behaviors and body condition are being funded by the Office of Naval Research Marine Mammals and Biology program. Although the technology shows promise, the field limitations associated with the use of this technology has hindered the useful application in behavioral response studies in association with Navy training and testing events. For safety reasons, research vessels cannot remain in close proximity to Navy vessels during Navy training or testing events, so battery life of the unmanned aerial vehicles has been an issue. In addition to researching unmanned platforms, the Navy plans to continue researching thermal detection systems to determine their effectiveness and compatibility with Navy applications. If thermal detection technology matures to the state where it is determined to be an effective mitigation tool during training and testing, the Navy will assess the practicality of using the technology during training and testing events and retrofitting its observation platforms with thermal detection devices. The Navy will provide information to NMFS about the status and findings of Navy funded studies and any associated practicality assessments at the annual adaptive management meetings.</p> <p>However, as the technology improves, the Navy will continue to assess the applicability of this technology for the Navy's research and monitoring programs. An example project is Integrating Remote Sensing Methods to Measure Baseline Behavior and Responses of Social Delphinids to Navy sonar (Principal</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
43 (cont.)			Investigators: Brandon Southall, John Calambokidis, and John Durban).
44	<u>Organization:</u> O03-41	We therefore recommend the Navy expand funding to explore the utility of other, simpler modeling methods that could provide at least an indication of population-level effects, even if each of the behavioral and physiological mechanisms are not fully characterized. Additionally, we encourage the Navy to contribute increased funds to studies aimed at exploring other potential proxy measures of changes in population-level abundance in order to develop an early-detection system for populations that may be experiencing a decline as a result of Navy activities.	The Office of Naval Research Marine Mammals and Biology program has invested in the Population Consequences of Disturbance (PCoD) model, which provides a theoretical framework and the types of data that would be needed to assess population-level impacts. Although the process is complicated and many species are data poor, this work has provided a foundation for the type of data that is needed. Therefore, in the future, relevant data that is needed for improving the analytical approaches for population-level consequences resulting from disturbances will be collected during projects funded by the Navy's marine species monitoring program. General population-level trend analysis is conducted by NMFS through their stock assessment reports and regulatory determinations. The Navy's analysis of effects to populations (species and stocks) of all potentially exposed marine species, including marine mammals and sea turtles, is based on the best available science as discussed in Section's 3.7 (Marine Mammals) and 3.8 (Reptiles). PCoD models, similar to many fisheries stock assessment models, once developed will be powerful analytical tools when mature. However, currently they are dependent on too many unknown factors for these types of models to produce a reliable answer.
45	<u>Organization:</u> O04-01	The Atlantic sea scallop is notably absent from the list of species on page 3.4-4, but can be quite abundant in certain habitat types, namely areas with sand and gravel sediments and depths of 18-110 meters.	Page 3.4-4 does not provide a comprehensive list of species, only sample lists of taxonomic groups including scallops. The intent of this section was not to provide a comprehensive list of invertebrate species tied to any particular location, but rather taxonomic/morphologic/behavioral groups that were the subject of analysis regarding sparse impacts spread across a vast study area.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
46	<u>Organization:</u> O04-06	Coral distributions in the New England and Mid-Atlantic regions are well documented in the recent plan amendments/environmental assessments developed by the Mid-Atlantic and New England Fishery Management Councils, and we would be happy to provide the Navy with specific information based on our recent work. NMFS, a collaborating agency on the EIS, has substantial expertise in this area and is the source of most of our coral data.	Thank you for offering the data. The Navy did consider and use the data, as appropriate, in the analysis.
47	<u>Organization:</u> O04-12a	<p>With respect to fishing activity, the summary provided in section 3.11.2.4 is a good overview of commercial and recreational fishing in the Atlantic and Gulf regions, but would benefit from additional specifics. It would be helpful to include an assessment of the likely spatial overlap between specific types of fishing activities with the locations where training and testing activities are likely to be concentrated. Fishing activities could be grouped by target species, fishery management plan, or gear type. Such an analysis would not need to be overly specific to be useful; as both fishing activities and Naval testing and training are somewhat difficult to forecast precisely, this would be challenging in any case.</p> <p>Fishing effort maps are available on regional ocean data portals such as http://www.northeastoceandata.org/ and http://portal.midatlanticocean.org/.</p>	Within the AFTT Study Area, the Northeast and Mid-Atlantic Regional Planning Bodies developed Plans that were certified by the National Ocean Council in December 2016. In those Plans, the Department of Defense committed to using the Plans and Regional Data Portals to inform pertinent environmental programs, initiatives, and planning documents. The Regional Ocean Plans and Data Portals were used as a resource throughout the development of this EIS/OEIS. Additionally, because the proposed activities would not lead to a noticeable change in Navy presence, and because the proposed locations for these activities do not differ much from historical use, it is unlikely that commercial and recreational fishing activities would be noticeably affected by Navy activities requiring area restrictions.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
48	<u>Organization:</u> O05-02, O05-04	Two comments were specific to concerns over potential impacts to the Narragansett Bay from the Proposed Action.	Appendix A (Navy Activity Descriptions) provides the activities that may occur within inland waters and pierside locations. For example, the only training events identified as occurring within Narragansett Bay are Maritime Security Operations (section A.2.9.13) and Waterborne Training (section A.2.10.9). The timing of training cycles and testing needs varies based on deployment requirements to meet current and emerging threats. As such, the AFTT EIS/OEIS is structured to provide flexibility in training and testing locations, timing, and number of events. Due to the variety of factors, many of which influence locations that cannot be predicted in advance (e.g., weather), the information and analysis provided is at a geographic scale necessary to allow for flexibility. Additionally, the activities occurring within and near Narragansett Bay are consistent with activities that have been occurring in the area for decades, to which no effects to the Bay or watershed have been identified.
49	<u>Organization:</u> O05-03, O05-11	Two comments expressed that the Navy did not adequately address or inform the public of the potential direct, indirect, or cumulative impacts resulting from the proposed activities.	The Navy's analysis of direct and indirect effects is described in Chapter 3.0.3 (Overall Approach to Analysis). Generally for each resource analyzed in Chapter 3 (Affected Environment and Environmental Consequences), the direct impacts from individual stressors are analyzed first, followed by, where applicable, the secondary stressors, and then concludes with a summary of the potential impacts of combined stressors (all direct and indirect). The analysis of cumulative impacts is provided in Chapter 4 (Cumulative Impacts). Further, the U.S. EPA has reviewed the Draft EIS/OEIS and rated the Draft EIS/OEIS as LO-Lack of Objections-which means, it has not identified any environmental impacts requiring substantive changes to the proposal.
50	<u>Organization:</u> O05-09	Despite the critical importance of SAV to Narragansett Bay and the close proximity of SAV to training and testing grounds, most graphics depicting Narragansett Bay make it impossible to discern any detail due to their scale.	The Phase III Essential Fish Habitat Assessment can be found on the project website (www.aftteis.com) and has a full page map of Narragansett Bay including up-to-date mapping of seagrass beds, seaweed beds, rocky shorelines, rocky bottoms, shipwrecks, etc.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
Acoustics and Explosives			
51	<u>Federal:</u> F02-04	Acknowledge all the park units in the study area and include an analysis of all noise generating activities (airborne and marine) that could impact national park resources and values even when not occurring within park boundaries. In particular, the NPS requests that the Final EIS include a more thorough analysis of potential impacts that airborne noise sources may have on wilderness values, recreational activities and visitor experience in and around NPS units. Certain site-specific noise sources may warrant inclusion and potential mitigation in the document due to their specific location and potential severity of impacts.	The Navy added several parks to Chapter 6 Table 6.1-2 that had not been previously identified in the Draft EIS/OEIS. These include: Fort Carolina National Memorial; Gulf Islands National Seashore; Fort Sumter National Monument; Acadia National Park; Boston Harbor Islands National Recreation Area; Christiansted National Historic Site; Fort Monroe National Monument; Colonial National Historic Park; and Sandy Point National Wildlife Refuge. All these locations are either within the Study Area or are directly adjacent to the Study Area. The rest of the areas provided in Attachment A to the comment letter were in close proximity to the Study Area, but generally, noise producing activities conducted by the Navy near coastal National Parks, Historic Sites or Monuments would occur greater than 12 NM from the coast. Aircraft noise would be intermittent due to transits from airfields to the operating areas at sea. Any activities occurring on the coast, would generally occur on Department of Defense controlled beaches. These operating parameters will prevent or reduce any noise impacts to park resources. The Final EIS/OEIS includes more information regarding potential impacts of wilderness values, recreational activities and visitor experience from airborne noise to Section 3.11 (Socioeconomics) with regard to park units.
52	<u>Federal:</u> F05-01	<p>The Commission notes that 30 iterations or Monte Carlo simulations is low for general bootstrapping methods but understands that increasing the number of iterations in turn increases the computational time needed to run the models.</p> <p>Accordingly, the Commission suggests that, if the computation time is not overly burdensome, the Navy consider increasing the iterations from 30 to at least 200 for activities that have yet to be modeled for Phase III and for all activities in Phase IV.</p>	The 30 iterations used in Navy Acoustic Effects Model (NAEMO) represent the number of iterations run for each of the four seasons analyzed in AFTT Phase III which results in a total of 120 iterations per year for each event analyzed. For other areas where only warm and cold seasons are analyzed, the number of iterations per season is increased to 60 so that the same 120 iterations per year are maintained. Navy reached this number of iterations by running two iterations of a scenario and calculating the mean of exposures, then running a third iteration and calculating the running mean of exposures, then a fourth iteration and so on. This is done until the running mean becomes stable.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
52 (cont.)			<p>Through this approach, it was determined 120 iterations was sufficient to converge to a statistically valid answer and provides a reasonable uniformity of exposure predictions for most species and areas. There are a few exceptions for species with sparsely populated distributions or highly variable distributions. In these cases, the running mean may not flatten out (or become stable); however, there were so few exposures in these cases that while the mean may fluctuate; the overall number of exposures did not result in significant differences in the totals. In total, the number of simulations conducted for AFTT Phase III exceeded six million simulations and produced hundreds of terabytes of data. Increasing the number of iterations, based on the discussion above, would not result in a significant change in the results, but would incur a significant increase in resources (e.g., computational and storage requirements). This would divert these resources from conducting other more consequential analysis without providing for meaningfully improved data. The Navy is continually looking at ways to improve NAEMO and reduce data and computational requirements. As technologies and computational efficiencies improve, Navy will evaluate these advances and incorporate them where appropriate.</p>
53	<u>Federal:</u> F05-02	Therefore, the Commission again recommends that the Navy use its spatially and temporally dynamic simulation models (e.g., randomly-generated munition trajectories and animat simulations) rather than simple probability calculations to estimate strike probabilities and number of takes from expended munitions and non- explosive materials.	<p>The recommendation of the Marine Mammal Commission to use a dynamic simulation model to estimate expended munitions and non- explosive materials strike probability was considered, but the Navy found that the current analysis used in the Final EIS/OEIS is more conservative and over estimates the potential impacts to marine mammals. An analysis of direct strike resulting from expended materials conducted in a dynamic simulation model such as NAEMO would also be a probability analysis, however it would be conducted in a different manner.</p> <p>The current analysis provides an overestimation of the probability of a strike for the following reasons: (1) calculates the probability of a single military item (of all the items expended over the course</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
53 (cont.)			of the year) hitting a single animal at its species' highest seasonal density, (2) does not take into account the possibility that an animal may avoid military activities, (3) does not take into account the possibility that an animal may not be at the water surface, (4) does not take into account that most projectiles fired during training and testing activities are fired at targets, and not all projectiles would hit the water with their maximum velocity and force, and (5) does not quantitatively take into account the Navy avoiding animals that are sighted through the implementation of mitigation measures. In order to be more conservative, the Navy will continue using this method.
54	<u>Federal:</u> F05-03	As such, the Commission recommends that the Navy review Branstetter et al. (2017) and determine whether inclusion of the killer whale audiogram data would alter the composite audiograms, weighting functions, and/or weighted thresholds for the various functional hearing groups and if so, whether those modifications are sufficient to warrant revisions in the current weighting functions and associated thresholds as stipulated in Department of Navy (2017).	The Navy developed the current Phase III temporary and permanent threshold shift (TTS) thresholds and weighting functions in coordination with NMFS and in turn NMFS adopted these criteria for species under their regulatory purview. Navy reviewed Branstetter et. al. 2017 and is cited in Section 3.7.2.1.4, Hearing and Vocalization. We will continue to review and evaluate new relevant data as it becomes available. Since the methodology for deriving composite audiograms and associated marine mammal auditory weighting functions, as well as TTS thresholds is data driven, any new information that becomes available has the potential to cause some amount of change for that specific hearing group but also other hearing groups, if they rely on surrogate data. It may not be feasible to make changes every time a new data point becomes available. Instead, Navy will periodically examine new data to date and consider the impacts of those studies on the Technical Guidance to determine what revisions/updates may be appropriate. Thus far, no new information has been published or otherwise conveyed that would fundamentally change the assessment of impacts or conclusions of this Final EIS/OEIS.
55	<u>Federal:</u> F05-04	Two comments expressed concern over the use of cut-off distances in the analysis estimating the	The consideration of proximity (cut-off distances) was part of the criteria developed in consultation with NMFS and was applied

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
55 (cont.)	<u>Organization:</u> O03-50	numbers of marine mammal takes.	within the Navy's acoustic effects model. Cut-off distances were used to better reflect the take potential for military readiness activities as defined in the MMPA. As stated in Draft EIS/OEIS Section 3.7.3.1.2.1, the derivation of the behavioral response functions and associated cut-off distances is provided in the 2017 technical report titled <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III)</i> . Briefly, much of the data used to derive the behavioral response functions was from nearby, scaled sources, thereby potentially confounding results since it is difficult to tell whether the focal marine mammal is reacting to the sound level or the proximity of the source and/or vessel amongst other potentially confounding contextual factors that are unlike actual Navy events for which the behavioral response functions (BRF's) are being derived. To account for these non-applicable contextual factors, all available data on marine mammal reactions to actual Navy activities and sound sources (or other large scale activities such as seismic surveys when information on proximity to sonar sources is not available for a given species group, i.e. harbor porpoises) were reviewed to find the farthest distance to which significant behavioral reactions were observed. These distances were rounded up to the nearest 5 or 10 km interval, and for moderate to large scale activities using multiple or louder sonar sources, these distances were greatly increased --- doubled in most cases. The Navy's BRF's applied within these distance is currently the best know method for providing the public and regulators with a more realistic (but still conservative where some uncertainties exist) estimate of impact and potential take under military readiness for the proposed actions within this Final EIS/OEIS.
56	<u>Federal:</u> F05-05	Therefore, the Commission recommends that the Navy include behavior takes of marine mammals during all explosive activities, including those that involve single detonations.	As stated in Final EIS/OEIS Section 3.7.3.2.2.1 (Methods for Analyzing Impacts from Explosives), the derivation of the explosive injury criteria is provided in the 2017 technical report titled <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects</i>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
56 (cont.)			<p><i>Analysis (Phase III)</i>. This report was provided as supporting documentation to the AFTT EIS/OEIS.</p> <p>There is no evidence to support that animals have significant behavioral reactions to temporally and spatially isolated explosions. The Navy has been monitoring detonations since the 1990's and has not observed these types of reactions.</p> <p>TTS and all other higher order impacts are assessed for all training and testing events that involve the use of explosives or explosive ordnance. All Navy's monitoring projects, reports and publications are available on the marine species monitoring webpage (https://www.navymarinespeciesmonitoring.us/).</p>
57	<u>Federal:</u> F05-06	The Commission recommends that the Navy (1) specify why the constants and exponents for onset mortality and onset slight lung injury thresholds for Phase III have been amended, (2) ensure that the modified equations are correct, and (3) specify whether any additional assumptions were made.	As stated in Section 3.7.3.2.2.1 (Methods for Analyzing Impacts from Explosives), the derivation of the explosive injury equations is provided in the 2017 technical report titled <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III)</i> .
58	<u>Federal:</u> F05-07	Multiple common dolphins were killed during one of the Navy's underwater detonation events in March 2011 (Danil and St. Leger 2011). Although the effectiveness of the Navy's mitigation measures has yet to be determined, those circumstances make it clear that the Navy's mitigation measures are not fully effective, especially for explosive activities. Thus, it would be prudent for the Navy to estimate injuries and mortalities based on onset rather than a 50-percent incidence of occurrence. The Navy did indicate that it is reasonable to assume for impact analysis—thus its take estimation process—that extensive lung hemorrhage is a level of injury that would result in wild animal mortality (Department of the Navy 2017). It is unclear why the Navy did not	<p>Based on an extensive review of the incident referred to by the commenter, the Navy, in consultation with NMFS, revised and updated the mitigation for these types of events. There have been no further incidents since these mitigation changes were instituted.</p> <p>The Navy used the range to one percent risk of mortality and injury (referred to as "onset" in the Draft EIS/OEIS) to inform the development of mitigation zones for explosives. In all cases, the mitigation zones for explosives extend beyond the range to one percent risk of non-auditory injury, even for a small animal (representative mass = 5 kg). In the Final EIS/OEIS, the Navy has clarified that the "onset" non-auditory injury and mortality criteria are actually one percent risk criteria.</p> <p>Over-predicting impacts, which would occur with the use of one</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
58 (cont.)		<p>follow through with that premise.</p> <p>The Commission recommends that the Navy use onset mortality, onset slight lung injury, and onset GI tract injury thresholds to estimate both the numbers of marine mammal takes and the respective ranges to effect.</p>	<p>percent non-auditory injury risk criteria in the quantitative analysis, would not afford extra protection to any animal. The Navy, in coordination with NMFS, has determined that the 50 percent incidence of occurrence is a reasonable representation of a potential effect.</p>
59	<u>Federal:</u> F05-12	<p>Given that sound sources are moving, it may not be until later in an exercise that the animal is close enough to experience PTS and it is those few close pings that contribute to the potential to experience PTS. An animal being beyond the PTS zone initially has no bearing on whether it will come within close range later during an exercise since both sources and animals are moving. In addition, Navy vessels may move faster than the ability of the animals to evacuate the area. The Navy should have been able to query the dosimeters of the animats to verify whether its 5-percent assumption was valid.</p>	<p>As stated in Final EIS/OEIS Section 3.7.3.1.2.1 (Methods for Analyzing Impacts from Sonar and Other Transducers), the consideration of marine mammals avoiding the area immediately around the sound source, is provided in the 2018 technical report titled <i>Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing</i>. This report was provided as supporting documentation to the Draft EIS/OEIS. As the commenter correctly articulates: "For avoidance, the Navy assumed that animals present beyond the range to onset PTS for the first three to four pings are assumed to avoid any additional exposures at levels that could cause PTS." That equated to approximately 5 percent of the total pings or 5 percent of the overall time active; therefore, 95 percent of marine mammals predicted to experience PTS due to sonar and other transducers were instead assumed to experience TTS. As discussed in the Quantitative Analysis for Estimating Acoustic and Explosive Impacts to Marine Mammals and Sea Turtles, animats in the Navy's acoustic effects model do not move horizontally or 'react' to sound in any way, necessitating the additional step of considering animal avoidance of close-in PTS zones. This approach is fully supported by the best available</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
59 (cont.)			science. Based on a growing body of behavioral response research, animals do in fact avoid the immediate area around sound sources to a distance of a few hundred meters or more depending upon the species. Avoidance to this distance greatly reduces the likelihood of impacts to hearing such as (TTS and PTS, respectively). Specifically, the ranges to PTS for most marine mammal groups are within a few tens of meters and the ranges for the most sensitive group, the HF cetaceans, average about 200 m, to a maximum of 270 m in limited cases; however HF cetaceans such as harbor porpoises, have been observed reacting to anthropogenic sound at greater distances than other species and are likely to avoid their zones to hearing impacts (TTS and PTS) as well. Querying the dosimeters of the animats would not produce useful information since, as discussed previously, the animats do not move in the horizontal and are not programmed to "react" to sound or any other stimulus.
60	<u>Federal:</u> F05-13	Therefore, the Commission again recommends that the Navy (1) provide the total numbers of model-estimated Level A harassment (PTS and slight lung and GI injuries) and mortality takes rather than reduce the estimated numbers of takes based on the Navy's post-model analyses and (2) include the model-estimated Level A harassment and mortality takes in its LOA application to inform NMFS's negligible impact determination analyses.	<p>As stated in Draft EIS/OEIS Section 3.7.3.1.2.1 (Methods for Analyzing Impacts from Sonar and Other Transducers) and in Section 3.7.2.2.1 (Methods for Analyzing Impacts from Explosives), the consideration of marine mammal avoidance and mitigation effectiveness is integral to the Navy's overall analysis of impacts from sonar and explosive sources. Details of this analysis are provided in the 2018 technical report titled <i>Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing</i>.</p> <p>As discussed in the 2018 technical report titled <i>Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing</i>, animats in the Navy's acoustic effects model do not move horizontally or 'react' to sound in any way. The current best available science based on a growing body of behavioral response research shows that animals do in fact avoid the immediate area around sound sources to a distance of a few hundred meters or</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
60 (cont.)			<p>more depending upon the species. Avoidance to this distance greatly reduces the likelihood of impacts to hearing such as TTS and PTS, respectively).</p> <p>Specifically, the ranges to PTS for most marine mammal groups are within a few tens of meters and the ranges for the most sensitive group, the HF cetaceans, average about 200 m, to a maximum of 270 m in limited cases; however HF cetaceans such as harbor porpoises, have been observed reacting to anthropogenic sound at greater distances than other species and are likely to avoid their zones to hearing impacts (TTS and PTS) as well.</p> <p>As discussed in the 2018 technical report titled <i>Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing</i>, the Navy's acoustic effects model does not consider procedural mitigations (i.e., power-down or shut-down of sonars, or pausing explosive activities when animals are detected in specific zones adjacent to the source) which necessitates consideration of these factors in the Navy's overall acoustic analysis. Credit taken for mitigation effectiveness is extremely conservative. Not considering animal avoidance and mitigation effectiveness would lead to a great over-estimate of injurious impacts. NMFS has concurred with the analytical approach used.</p>
61	<u>Federal:</u> F05-14	Therefore, the Commission recommends that the Navy (1) specify what modeling method and underlying assumptions were used to estimate PTS and TTS zones for pile driving activities and (2) clarify why those zones were estimated to be the same for LF and HF.	As stated in Section 3.7.3.1.4.1 (Methods for Analyzing Impacts from Pile Driving), the Navy used measured values for source levels and transmission loss from pile driving of the Elevated Causeway System, the only pile driving activity included in the Proposed Action of this EIS/OEIS. These recorded source waveforms were weighted using the auditory weighting functions. Low-frequency and high-frequency cetaceans have similar ranges for impact pile driving since low-frequency cetaceans would be relatively more sensitive to the low-frequency sound which is

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
61 (cont.)			below high-frequency cetaceans best range of hearing. Neither the NMFS user spreadsheet nor NAEMO were required for calculations. An area density model was developed in MS Excel which calculated zones of influence to thresholds of interest (e.g., behavioral response) based on durations of pile driving and the aforementioned measured and weighted source level values. The resulting area was then multiplied by density of each marine mammal species that could occur within the vicinity. This produced an estimated number of animals that could be impacted per pile, per day, and overall during the entire activity for both the impact pile driving and vibratory removal phases.
62	<u>Federal:</u> F07-01	The NOAA Office of Coast Survey requests that if any depth-sounding sonars will be operated in the course of the action, please record the collected data and share it with NOAA's National Centers for Environmental Information (NCEI) database. (See https://www.ncei.noaa.gov/ .)	Bathymetric surveys are currently not part of the Proposed Action; therefore, the requested data is not collected or available from the training and testing activities in AFTT.
63	<u>State:</u> S05-46	We also request that the navy validate its Acoustic Effects Model in-situ in Southeast U.S. waters to ensure that take estimates from active sonar and ordnance detonation are as accurate as possible.	The acoustic propagation models have been validated and approved by the Oceanographic and Atmospheric Master Library. These models are the same used for Navy's tactical decision aids.
64	<u>State:</u> S24-01b	It is recommended the EIS/OEIS contain as much descriptive information as to potential effects to these resources including cumulative activities that may affect certain species to include increased anthropogenic noise in the ocean associated with all aspects of testing and training within the Northwest Atlantic Ocean Distinct Population Segment (DPS). Within the North Atlantic DPS, U.S. NMFS has designated thirty-six (36) marine areas as critical habitat. Each of these areas consist of multiple or a combination of habitat types, but the most important habitat to consider with regard to	The potential for combined impacts on all of the stressors introduced by Navy training and testing activities are evaluated in Section 3.8.4 (Summary of Potential Impacts on Reptiles). Cumulative impacts from the Proposed Action, as well as Federal and non-Federal actions, regarding sea turtles and anthropogenic noise, are discussed in Section 4.4.8 (Reptiles) of the Cumulative Impacts chapter. Potential impacts of anthropogenic noise introduced by Navy training and testing activities are discussed and analyzed in Sections 3.8.3.1 (Acoustics Stressors) and 3.8.3.2 (Explosive Stressors) for sea turtles, including the loggerhead Northwest DPS and its designated critical habitat. Only species and their critical habitat (if designated) were given a determination of

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
64 (cont.)		<p>testing and training is restricted migratory corridors in federal waters.</p> <p>NMFS also received special management considerations for foraging habitat in two large areas that contain Sargassum habitat, which presumably is located in the same area as the planned activities.</p>	<p>effect on the potential impacts of the Proposed Action. Foraging habitat is not a designated critical habitat type for the loggerhead Northwest Atlantic DPS (79 FR 39855) so it was not explicitly analyzed for an effect determination.</p> <p>Sargassum habitat is a designated critical habitat type and this was addressed in the analysis. However, some of the known foraging/developmental habitats for the loggerhead Northwest Atlantic DPS are addressed in Section 3.8.2.2.4 (Loggerhead Turtle (<i>Caretta caretta</i>)) as well as considered in some of the U.S. Navy stressor analysis sections in Section 3.8.3 (Environmental Consequences). The NMFS consultation document (Biological Assessment) and the Final EIS/OEIS include an in depth analysis of the impacts on the loggerhead Northwest Atlantic DPS as well as its designated critical habitat.</p>
65	<u>Local/Regional:</u> L03-02	What exactly is meant by "active sonar and explosives?"	A description for Acoustic Stressors analyzed as part of the Proposed Action (including active sonar) can be found in the EIS/OEIS in Section 3.0.3.3.1 (Acoustic Stressors), and a description of Explosive Stressors analyzed as part of the Proposed Action can be found in Section 3.0.3.3.2 (Explosive Stressors) of the Final EIS/OEIS.
66	<u>Organization:</u> O03-42	While it's certainly true that some marine mammals will flee the sound, there are no data to inform us how many would do so, let alone that 95% would move as expeditiously as the Navy presumes. Marine mammals may remain in important habitat, and the most vulnerable individuals may linger in an area, notwithstanding the risk of harm; marine mammals cannot necessarily predict where an exercise will travel; and Navy vessels engaged in certain activities may move more rapidly than a marine mammal that is attempting to evacuate.	Sound levels diminish quickly below levels that could cause PTS. Studies have shown that all animals observed avoid areas well beyond these zones; therefore, the vast majority of animals are likely to avoid sound levels that could cause injury to their ear. Behavioral response literature, including the recent 3S and SOCAL BRS studies indicate that the multiple species from different cetacean suborders do in fact avoid approaching sound sources by a few hundred meters or more which would reduce received sound levels for individual marine mammals to levels below those that could cause permanent threshold shift (PTS). Specifically, the ranges to PTS for most marine mammal groups are within a few tens of meters and the ranges for the most sensitive group, the

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
66 (cont.)			high-frequency cetaceans, average about 200 meters. Animals present beyond the range to onset PTS for the first three to four pings are assumed to avoid any additional exposures at levels that could cause PTS. This equates to approximately 5 percent of the total pings or 5 percent of the overall time active; therefore, 95 percent of marine mammals predicted to experience PTS due to sonar and other transducers are instead assumed to experience TTS. A detailed analysis, including information on swim speeds, is provided in the 2018 technical report titled <i>Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical; Approach for Phase III Training and Testing</i> . Nevertheless, some animals could be caught off-guard at the beginning of, or after a pause in a training or testing event. Therefore, the Navy acknowledges that some animals could receive PTS and has estimated these impacts in the analysis. Avoidance adjustments to the raw output from the NAEMO are necessary because, as described in the EIS/OEIS in Section 3.7.3.1.2.1 (Methods for Analyzing Impacts from Sonars and Other Transducers) and Section 3.7.3.2.2.1 (Methods for Analyzing Impacts from Explosives), animats (i.e. computer representations of individual marine mammals) in the model are not programmed to avoid sound sources or move horizontally in any way.
67	<u>Organization:</u> O03-44	For purposes of analysis, the Navy should assume that beaked whales are subject to both acute and chronic injury from gas-bubble formation under certain conditions of sonar exposure.	Nitrogen decompression is discussed in the Final EIS/OEIS in Section 3.7.3.1.1.1 (Marine Mammals - Injury - Nitrogen Decompression). This section discusses the background of potential impacts to marine mammals from acoustic stressors, such as sonar, and outlines the literature currently available with regards to this potential impact.
68	<u>Organization:</u> O03-45	The draft criteria that SPAWAR has produced to estimate temporary and permanent threshold shift in marine mammals are erroneous and non-conservative. Wright (2015) has identified several statistical and	These are not draft criteria, the permanent threshold shift/temporary threshold shift criteria and thresholds were established by NMFS through a public notice and comment process (81 FR 51694) which included multiple rounds of peer reviews, and 83 FR 28824 which was published 21 June 2018, for

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
68 (cont.)		numerical faults in the Navy’s approach, such as pseudoreplication and inconsistent treatment of data that tend to bias the proposed criteria towards an underestimation of effects. Similar and additional issues were raised by a dozen scientists during the public comment period on the draft criteria held by NMFS. At the root of the problem is the Navy’s broad extrapolation from a small number of individual animals, mostly bottlenose dolphins, without taking account of what Racca et al. (2015b) have succinctly characterized as a “non- linear accumulation of uncertainty.” The auditory impact criteria should be revised.	the 2018 Revision to <i>Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing-Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold</i> . These include numerous conservative assumptions, such as: (1) Navy assumes no recovery of hearing during time intervals between intermittent exposures. However, multiple studies from humans, terrestrial mammals, and marine mammals have demonstrated less temporary threshold shift from intermittent exposures compared to continuous exposures with the same total energy because hearing is known to experience some recovery in between noise exposures. Therefore, the Navy’s approach is known to over-estimate the effects of intermittent noise sources such as tactical sonars. (2) Marine mammal temporary threshold shift data have shown that, for two exposures with equal energy, the longer duration exposure tends to produce a larger amount of temporary threshold shift. Since most marine mammal temporary threshold shift data have been obtained using exposure durations of tens of seconds up to an hour, much longer than the durations of many tactical sources, the use of the existing marine mammal temporary threshold shift data tends to over-estimate the effects of sonars with shorter duration signals. Since marine mammal hearing and noise-induced hearing loss data are limited, both in the number of species and in the number of individual’s available, attempts to minimize pseudoreplication would further reduce these already limited data sets. Specifically, with marine mammal behavioral temporary threshold shift studies, behaviorally-derived data are only available for two mid-frequency cetacean species (bottlenose dolphin, beluga) and two phocids in water pinniped species (harbor seal and northern elephant seal), with OW pinnipeds and high-frequency cetaceans only having behaviorally-derived data from one species. Arguments from Wright (2015) regarding pseudo replication within the temporary threshold shift data are

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
68 (cont.)			<p>therefore largely irrelevant in a practical sense because there are so few data. Multiple data points were not included for the same individual at a single frequency - if multiple data existed at one frequency, the lowest temporary threshold shift onset was always used. There is only a single frequency where temporary threshold shift onset data exist for two individuals of the same species: 3 kHz for dolphins. Their temporary threshold shift (unweighted) onset values were 193 and 194 dB re 1 μPa2s. Thus, Navy believes that the current approach makes the best use of the given data. Appropriate means of reducing pseudoreplication may be considered in the future, if more data become available. Many other comments from Wright (2015) and the comments from Racca et al. (2015b) appear to be erroneously based on the idea that the shapes of the auditory weighting functions and temporary threshold shift/PTS exposure thresholds are directly related to the audiograms; i.e., that changes to the composite audiograms would directly influence the threshold shift/PTS exposure functions [e.g., Wright (2015) describes weighting functions as “effectively the mirror image of an audiogram” (p. 2) and states “The underlying goal was to estimate how much a sound level needs to be above hearing threshold to induce temporary threshold shift.” (p. 3) — both statements are incorrect and suggest a fundamental misunderstanding of the criteria/threshold derivation.] This would require a constant (frequency-independent) relationship between hearing threshold and temporary threshold shift onset that is not reflected in the actual marine mammal temporary threshold shift data. Attempts to create a “cautionary” outcome by artificially lowering the composite audiogram thresholds would not necessarily result in lower temporary threshold shift/PTS exposure levels, since the exposure functions are to a large extent based on applying mathematical functions to fit the existing temporary threshold shift data.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
69	<u>Organization:</u> O03-46	For example, two of the proposed behavioral response functions rely substantially on captive animal studies, even though it is generally accepted that captive animals, especially (but not limited to) those that have previously been trained, are likely to be less responsive to intrusive sound. Every data point that informs the pinniped function, and nearly two-thirds of the data points informing the odontocete function (30/49), are derived from a captive animal study. In the case of the odontocete function, the reliance on captive studies exacerbates that function's heavy dependence on the bottlenose dolphin, a species that is generally considered relatively insensitive, to represent a diverse set of taxa with divergent sensitivity and reactivity to mid-frequency anthropogenic noise.	<p>Please see the 2018 technical report titled <i>Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing</i> (U.S. Department of the Navy, 2017) for details on how the Navy accounted for the differences in captive and wild animals in the development of the BRF's.</p> <p>The Navy uses the best available science in the analysis which has been reviewed by external scientists and approved by NMFS. The Navy has utilized all available data for the development of updated criteria and threshold, and limiting the data to the small number of field studies would not provide enough data with which to develop the new risk functions. In addition, the Navy accounts for the fact that captive animals may be less sensitive, and the scale at which a moderate to severe response was considered to have occurred is different for captive animals than for wild animals, as the Navy understands those responses will be different.</p>
70	<u>Organization:</u> O03-49	As noted above, dipping sonar, like hull-mounted sonar, appears on the basis of preliminary data to be a significant predictor of deep-dive rates in beaked whales on SOAR, with the dive rate falling significantly (e.g., to 35% of that individual's control rate) during sonar exposure, and likewise appears associated with habitat abandonment. Importantly, these effects were observed at substantially greater distances (e.g., 30 or more km) from dipping sonar than would otherwise be expected given the systems' source levels and the beaked whale response thresholds developed from research on hull-mounted sonar.	<p>The Navy relied upon the best science that was available to develop the BRF's in consultation with NMFS. The Navy's current beaked whale BRF acknowledges and incorporates the increased sensitivity observed in beaked whales during both behavioral response studies and during actual Navy training events. This article (<i>Associating patterns in movement and diving behavior with sonar use during military training exercises: A case study using satellite tag data from Cuvier's beaked whales at the Southern California Anti-submarine Warfare Range, supra.</i>) was not available at the time the behavioral response functions were developed. The new information and data presented in the new article was recently thoroughly reviewed the Navy and will be quantitatively incorporated into the Navy's future BRF's as appropriate. However, the Navy's current beaked whale BRF covers the responses observed in the new article since the beaked whale risk function is more sensitive than the other risk functions</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
70 (cont.)			at lower received levels. Thus far, no new information has been published or otherwise conveyed that would significantly change the assessment change the assessment of impacts or conclusions of this Final EIS/OEIS.
71	<u>Organization:</u> O03-53	As with past analyses, the present DEIS tabulates exposures and takes of marine mammal species but has not adequately assessed the aggregate impacts. On the contrary, it assumes, without explanation, that the accumulated annual mortalities, injuries, energetic costs, temporary losses of hearing, chronic stress, and other impacts would not affect vital rates in individuals or populations, even though the Navy's activities would affect the same populations over time. This assumption seems predicated, for many species, on the unsupported notion that transient activity will not accumulate into population-level harm.	Within this Study Area the Navy has funded long-term monitoring on Navy ranges, areas that have been used for training and testing for decades, and has observed no evidence of population-level impacts. Based on best available research from NMFS and Navy funded marine mammal studies, there is no evidence that "population-level harm" to marine mammals, including beaked whales, is occurring in the AFTT Study Area. Through the Letter of Authorization process Navy works with NMFS to assure that the aggregate or cumulative impacts do not have more than a negligible impact on populations. The commenter has provided no evidence throughout their comment letter that there have been stock or population-level consequences resulting from Navy training and testing activities, activities that have occurred in these areas at similar levels of intensity, for more than 70 years. The marine mammal analysis in Section 3.7 does discuss the issues raised by the commenter, is based on best available science, thoroughly discusses potential effects to marine mammals, and provides the supporting science behind Navy's conclusions.
72	<u>Commercial:</u> C01-04b	However, the Draft EIS states on page ES-12 that "the expected impact of noise on invertebrates is...mostly limited to offshore layers of the water column where only...squid...are prevalent". There are scientific studies that show significant mortality of squid when exposed to low-frequency noise (see Andre et al "Low-frequency sounds induce acoustic trauma in cephalopods", Research Communications, 2011). We would request that this be considered when scheduling and locating exercises, as a significant portion of our income may be at stake.	The EIS/OEIS has taken a hard look at the impacts on invertebrates in Section 3.4.3 (Environmental Consequences - Invertebrates) which was based on the best available science. The Navy considered Andre et al. 2011 and determined the conditions in the study are not likely to be replicated during Navy training and testing activities. See Section 3.4.3.1.1.1 (Injury).

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
Mitigation and Monitoring			
73	<u>Federal:</u> F02-03	We recommend this procedure be included for other vessels mooring in waters where manatees could be present. This includes 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.	These mitigations were agreed to in previous consultations due to the unique method of mooring submarines to the wharf at Kings Bay, and these do not exist for ships listed at these other locations. Submarine and surface ship berthing methods are primarily based on the type of pier or quay wall within the port and the hull configuration. Due to the hull differences between submarines and the various surface ships hull shapes they are not moored in the same manner and therefore this procedure is not practical or necessary.
74	<u>Federal:</u> F02-05	Add a specific mitigation action that the Navy will coordinate with park units and regional offices for localized mitigation for activities that could affect park resources. Include national park unit locations in the development of mitigation areas. For example, include units on the map in Figure 2.4-1 on page 2.47 called Geographic Areas where the Navy proposes to conduct mitigation measures. Further, include park units in the appropriate sections in the mitigation chapter. The following represent specific mitigation suggestions to address concerns about potential impacts to park resources and values:	Chapter 6 (Regulatory Considerations) presents information on the national system of parks located in the Study Area. The Navy will avoid or reduce impacts to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented) and mitigation areas (see Section 5.4, Mitigation Areas to be Implemented). The Navy completed a full Biological Assessment and operational analysis of potential mitigation areas throughout the entire Study Area. Developing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.
75	<u>Federal:</u> F02-07	In lieu of analyzing each more localized noise source, NPS recommends that when activities are anticipated within a range of approximately 15 nautical miles to an NPS unit, that the Navy coordinates with the NPS to set distances or design timing of activities to reduce or avoid impacts from noise to park resources.	Navy training and testing activities that produce noise are typically conducted greater than 12 NM from the coast, as described in Section 2.3.3 (Standard Operating Procedures), which would limit the potential overlap between these activities and National Park Service Units and their resources. Aircraft noise would be intermittent due to transits from airfields to the operating areas at sea. Any activities occurring on the coast would generally occur on Department of Defense controlled beaches.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
76	<u>Federal:</u> F02-10	Provide mitigation for impacts to the Kemp's ridley sea turtle migration routes and habitats. In section 3.8.2.2.3.2 Habitat and Geographic Range for Kemp's ridley sea turtles, the fact that this species nests primarily during daytime hours is not included in the Draft EIS. This corresponds to an oversight in Mitigation: Table 5.3-16: Procedural Mitigation for Line Charge Testing which states that "From March through September (sea turtle nesting season), the Navy will not conduct line charge testing at night." This mitigation if implemented on the Texas coast should limit charge testing during the day due to the nesting behavior of Kemp's ridley.	The Navy will avoid or reduce impacts to sea turtles to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented). Line charge testing occurs only within the Naval Surface Warfare Center, Panama City Division Testing Range in Florida and mitigation was designed for that location. There are no activities planned for the nearshore area near Padre Island National Seashore.
77	<u>Federal:</u> F02-11	To mitigate impacts to sea turtles using inshore habitats, special consideration should be taken to cease or limit activities when water temperature drops below 12 degrees Celsius. Sea turtles become immobilized (stunned) below this temperature and cannot move out of the way of machinery. They can be struck by boats while floating helplessly on the water surface or easily crushed or buried by machinery or materials (Shaver et. al. 2017). Adding this information to the Mitigation section 5.3.1 ENVIRONMENTAL AWARENESS AND EDUCATION, and in training for observers would further protect sea turtles in this vulnerable state.	The Navy will avoid or reduce impacts to sea turtles to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented). Additional restrictions, such as limitations based on water temperature, would be impractical because it would prevent the Navy from accessing certain facilities, range complexes, testing ranges, and open ocean areas with the unique, challenging, and diverse environmental and oceanographic conditions (e.g., bathymetry, topography, surface fronts, and variations in sea surface temperature) needed to achieve the highest skill proficiency and most accurate testing results possible. However, as the Navy will be updating the required Marine Species Awareness Training, a statement regarding the increased chance of cold stunned sea turtles in water below 53.6 degree Fahrenheit will be added to the training video.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
78	<u>Federal:</u> F05-08	However, the Phase III proposed mitigation zones would not protect various functional hearing groups from PTS.	Per Section 5.3.3 (Explosive Stressors), for explosive mitigation zones, any additional increases in mitigation zone size (beyond what is depicted for each explosive activity) or observation requirements would be impractical to implement due to implications for safety, sustainability, and the Navy's ability to meet Title 10 requirements to successfully accomplish military readiness objectives, and the Navy's ability to conduct testing associated with required acquisition milestones or as required on an as-needed basis to meet operational requirements. Additionally, Navy Senior Leadership has approved and determined that the mitigation detailed in Chapter 5 (Mitigation) provides the greatest extent of protection that is practical to implement.
79	<u>Federal:</u> F05-09	Accordingly, the Commission continues to believe that rather than simply reducing the size of the zones it plans to monitor, the Navy should supplement its visual monitoring efforts with other monitoring measures. The Navy did propose to supplement visual monitoring with passive acoustic monitoring during three explosive activity types but not during the remaining explosive activities or during low-, mid- and high-frequency active sonar activities.	Per Section 5.3.3 (Explosive Stressors), for explosive mitigation zones, any additional increases in mitigation zone size (beyond what is depicted for each explosive activity) or observation requirements would be impractical to implement due to implications for safety, sustainability, and the Navy's ability to meet Title 10 requirements to successfully accomplish military readiness objectives. As discussed in the comment, the Navy does employ passive acoustic monitoring when practical to do so (i.e., when assets that have passive acoustic monitoring capabilities are already participating in the activity). For other explosive events, there are no platforms participating that have passive acoustic monitoring capabilities. Adding a passive acoustic monitoring capability (either by adding a passive acoustic monitoring device to a platform already participating in the activity, or by adding a platform with integrated passive acoustic monitoring capabilities to the activity) for mitigation is not practical. As discussed in Section 5.5.3 (Active and Passive Acoustic Monitoring Devices), there are significant manpower and logistical constraints that make constructing and maintaining additional passive acoustic monitoring systems or platforms for each training and testing

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
79 (cont.)			<p>activity impractical. Additionally, diverting platforms that have passive acoustic monitoring platforms would impact their ability to meet their Title 10 requirements and reduce the service life of those systems. Lastly, the mitigation zones for active sonar systems encompass the ranges to potential injury. The lookout effectiveness study mentioned by the commenter is still ongoing. This type of study has never been conducted, is extremely complex to ensure data validity, requires a substantial amount of data to conduct meaningful statistical analysis, and Navy is committed completing it.</p> <p>As noted by the commenter, there has not been enough data collected to conduct a sufficient analysis, therefore drawing conclusions on an incomplete data set is not scientifically valid.</p>
80	Federal: F05-10, F05-11	Two comments recommend more use of passive and active acoustic monitoring.	<p>For explosive events without passive acoustic monitoring (for example, bombing exercise), there are no platforms participating in those activities that have passive acoustic monitoring capabilities. Adding a passive acoustic monitoring capability (either by adding a passive acoustic monitoring device to a platform already participating in the activity, or by adding a platform with integrated passive acoustic monitoring capabilities to the activity) for mitigation is not practical. As discussed in Section 5.5.3 (Active and Passive Acoustic Monitoring Devices), there are significant manpower and logistical constraints that make constructing and maintaining additional passive acoustic monitoring systems or platforms for each training and testing activity impractical. Additionally, diverting platforms that have passive acoustic monitoring capabilities would impact their ability to meet their Title 10 requirements and reduce the service life of those systems.</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
81	<u>State:</u> S02-01 <u>Organization:</u> O02-06	Two comments urged the Navy to consider avoiding activities that could impact coral, specifically the area designated as the Frank R. Lautenberg Deep-Sea Coral Protection Area.	<p>In water depths typical of the Frank R. Lautenberg Deep-Sea Coral Protection Area, most explosions would occur at or near the water surface, and explosives that are detonated on the bottom would not be planned. Although it is possible for a portion of military expended materials to impact hard substrate and associated sensitive invertebrate communities in such deep-sea locations, the number of exposed coral individuals is likely to be near zero due to: (1) the miniscule footprint of MEM in the vast ocean environment in terms of both area and duration, and (2) the rarity of living coral on suitable hard substrate that is itself relatively rare in the AFTT study area (see Section 3.4.3.4.3, Impacts from Military Expended Materials).</p> <p>Developing additional mitigation areas for seafloor resources beyond what is detailed in Section 5.4.1 (Mitigation Areas for Seafloor Resources) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives</p>
82	<u>State:</u> S02-02	Naval testing, specifically underwater explosives and acoustic stressors, along the continental shelf of the Mid-Atlantic threaten economically valuable fish populations and should be avoided.	The Navy is committed to developing and implementing mitigation to avoid or reduce potential impacts to marine species, cultural resources, and the marine environment to the maximum extent practicable. Chapter 5 (Mitigation) details the mitigation that the Navy will implement under the Proposed Action. The Navy completed an Essential Fish Habitat assessment and operational analysis of potential mitigation areas throughout the entire Study Area. The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within the identified mitigation areas that is practical to implement under the Proposed Action.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
83	<u>State:</u> S02-04	Navy testing and training should avoid areas with intricate bottom habitat structure and high productivity to minimize the cumulative effects of the activities and climate change.	The Navy is committed to developing and implementing mitigation to avoid or reduce potential impacts to marine species, cultural resources, and the marine environment to the maximum extent practicable. Chapter 5 (Mitigation) details the mitigation that the Navy will implement under the Proposed Action. As discussed in Section 5.4.1 (Mitigation Areas for Seafloor Resources), the Navy will implement mitigation measures (e.g., avoiding bottom-placed explosives) to avoid or reduce potential impacts to shallow-water coral reefs, live hard bottom, artificial reefs, submerged aquatic vegetation, and shipwrecks.
84	<u>State:</u> S04-03	We continue to commend the Navy's support of EWS surveys, but would like to note that airspace restrictions due to military activities have limited these aerial surveys on several occasions in previous years including this past season. These airspace restrictions limit the mitigation effectiveness of EWS surveys, and we encourage the Navy to work with the NMFS and its partners to increase the effectiveness of EWS surveys as a mitigation measure and monitoring tool.	The Navy is a dedicated participant and sponsor of the EWS and has made significant strides in recent years to deconflict training activities with the EWS flights. Only on rare occasions will training or testing activities affect the Early Warning System surveys for safety of flight, and Navy will continue to work with the survey team for the scheduling of flights and Navy activities to minimize any potential conflict to the maximum extent practicable.
85	<u>State:</u> S04-04, S05-07, S05-38, S05-42	Four comments supported expanding the North Atlantic Right Whale mitigation areas and including time of year restrictions in these areas for come Navy activities.	As described in Chapter 5 (Mitigation) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicality of numerous potential mitigation measures. Through consultation and permitting with NMFS, the Navy evaluated the potential to increase the size of its mitigation areas, such as areas that overlap North Atlantic right whale calving habitat. The Navy identified several opportunities to expand its mitigation areas to enhance protections for North Atlantic right whales to the maximum extent practicable. Further expansions of the mitigation areas beyond what is detailed in Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States) would have unacceptable impacts on safety, sustainability, and the ability for the Navy to continue meeting its mission requirements.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
86	<u>State:</u> S05-08	In the event that a NARW is killed or seriously injured by a Navy vessel 60 ft or greater in length operating within 30 nmi of the Southeast U.S. coast, the Navy will implement 10 kt vessel speed restrictions in this area from November 15 to April 15.	As discussed in the Draft EIS/OEIS and pursuant to 50 C.F.R. para 224.105, U.S. Navy vessels are exempt from the 10-knot North Atlantic right whale speed restriction. In the event a North Atlantic right whale is killed or significantly injured by a Navy vessel, the Navy would inform NMFS and evaluate the situation under the LOA regulation clauses, particularly 218.87 pertaining to modifications of LOAs.
87	<u>State:</u> S05-10	The Navy will coordinate with the NMFS Ocean Acoustics Program to establish maximum and cumulative thresholds for active sonar and ordnance detonation sound pressure levels detected within the NARW calving habitat Mitigation Area.	The Navy is fully integrated with the NMFS Ocean Acoustics Program. Any modifications resulting from the program were considered during consultations with NMFS and will be considered during the adaptive management process.
88	<u>State:</u> S05-40	We recommend Navy vessels avoid high-speed training and testing activities within the expanded mitigation area from November 15 to April 15 annually.	As discussed in Section 5.3.4.1 (Vessel Movement), the Navy implements mitigation to avoid vessel strikes throughout the Study Area. As described in Section 2.3.3 (Standard Operating Procedures) Navy vessels operate in accordance with the navigation rules established by the U.S. Coast Guard, which require that vessels proceed at a safe speed so that proper and effective action can be taken to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions. As described in Section 5.3.4.1 (Vessel Movement), any additional vessel speed restrictions would prevent vessel operators from gaining skill proficiency, would prevent the Navy from properly testing vessel capabilities, or would increase the time on station during training or testing activities as required to achieve skill proficiency or properly test vessel capabilities (which would significantly increase fuel consumption); therefore, the mitigation proposed by the comment would be impractical to implement.
89	<u>State:</u> S17-06, S17-09a	Two comments do not feel that the proposed mitigations are appropriate and recommend further mitigation options be explored.	As discussed in Chapter 5 (Mitigation), the Navy will implement a robust suite of mitigation measures designed to effect the least practicable adverse impact on marine mammal species or stocks

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
89 (cont.)			<p>and their habitat, and have a negligible impact on marine mammal species and stocks (as required under the Marine Mammal Protection Act), ensure that the Proposed Action does not jeopardize the continued existence of endangered or threatened species, or result in destruction or adverse modification of critical habitat (as required under the Endangered Species Act), avoid or minimize adverse effects on essential fish habitat (as required under the Magnuson Stevens Fishery Conservation and Management Act), and avoid adversely impacting shipwrecks (as required under the Abandoned Shipwreck Act and National Historic Preservation Act). Navy Senior Leadership has approved and determined that the mitigation detailed in Chapter 5 (Mitigation) provides the greatest extent of protection that is practical to implement. As discussed in Section 5.3 (Procedural Mitigation to be Implemented), the Navy implements procedural mitigation for 21 different activity categories or stressors whenever and wherever those activities occur throughout the Study Area. As discussed in Section 5.4 (Mitigation Areas to be Implemented), the Navy implements additional mitigation for seafloor resources as well as within mitigation areas specifically designed to further avoid or reduce potential impacts to marine mammals in important habitat areas. During the Phase III mitigation development process, the Navy considered several measures that would have unacceptable impacts on personnel safety, practicality of implementation, and impact on effectiveness of the military readiness activities. Information on those measures and why the Navy will not implement them is provided in Section 5.5 (Measures Considered but Eliminated).</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
90	<u>State:</u> S17-05	The North Atlantic right whale is one of the most critically endangered species on Earth. While seemingly greater protection was afforded to the species in the form of expanded Critical Habitat under the Endangered Species Act in 2016, other mitigation measures have not succeeded in establishing a coastline fit for their survival. Seasonal Management Areas (SMA) have contributed to a decline in vessel strikes, but vessel strikes that occur just outside the SMA spatial or temporal measure are common. Among other concerns noted in the 2016 Stock Assessment Report, "the reported human-caused mortality and serious injury was a minimum of 5.6, when Potential Biological Removal is calculated as 1, from 2010 through 2014" (Henry et al. 2017). Moreover, the recent shift in distribution and downward trend in population size are very concerning (Hayes et al. 2017). Compounding these established trends, at least 13, possibly 15, North Atlantic right whale carcasses have been found in the Gulf of St. Lawrence and off the coast of Massachusetts since the beginning of the year (MacKinnon 2017). The large number of deaths accounts for over 2% of the population and more than doubles the number of calves born this year. This dire situation begs serious consideration of introducing an additional threat to their habitat (Jones 2017). On August 25, 2017 NOAA Fisheries declared an Unusual Mortality Event for the North Atlantic right whales throughout their range based on recent elevated strandings along the Atlantic coast, predominantly in the Gulf of St. Lawrence region in Canada. As the best available science on	As discussed in Section 5.3.4.1 (Vessel Movement), the Navy implements mitigation to avoid vessel strikes throughout the Study Area. In addition to procedural mitigation, the Navy implements measures for vessel movement within several mitigation areas to further avoid or reduce the potential for marine mammal vessel strikes. For example, the Navy has expanded the extent of the Northeast North Atlantic Right Whale Mitigation Area to encompass the entire northeast North Atlantic right whale critical habitat. Within this mitigation area, as discussed in Section 5.4.2 (Mitigation Areas off the Northeastern United States), before vessel transits, the Navy will conduct a web query or email inquiry to the National Oceanographic and Atmospheric Administration NEFSC's North Atlantic Right Whale Sighting Advisory System to obtain the latest North Atlantic right whale sightings information. Vessels will use the obtained sightings information to reduce potential interactions with North Atlantic right whales during transits. Vessels will implement speed reductions after they observe a North Atlantic right whale, if they are within 5 NM of a sighting reported to the North Atlantic Right Whale Sighting Advisory System within the past week, and when operating at night or during periods of reduced visibility. Since the Navy has implemented mitigation measures and standard operating procedures, zero Navy vessel strikes with North Atlantic right whales have occurred to date.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
90 (cont.)		this species stands, any threat to the North Atlantic right whale, such as the recent mortality event, should be considered significant.	
91	<u>State:</u> S17-07	Marine debris is a growing conservation issue that has been recognized to threaten marine organisms through entanglement, ingestion, and toxin exposure (Laisl 1987, Eriksen et al. 2014, Vegter et al. 2014). Rather than leave any debris in the ocean, it would be better to avoid deploying it or to retrieve it. Most seabirds are attracted to any item near the surface, and will attempt to eat even non-digestible items (Pierce et al. 2004, Van Franeker et al. 2011, Wilcox et al. 2015, Moser et al. 2016). Debris on the seafloor can be a dangerous entanglement problem for both marine organisms and fishing gear deployed in the area. Persistent debris can leach pollutants into the environment over the long-term (Vegter et al. 2014). While there are perhaps other, more significant, contributions to the marine litter problem, Navy training and testing exercises should endeavor to have a minimal impact.	The Navy conducted a full analysis of the potential impacts of military expended materials on marine resources and has proposed several mitigation measures to help avoid or reduce those impacts. The analysis is contained throughout Chapter 3 (Affected Environment and Environmental Consequences) of the Final EIS/OEIS (e.g., Section 3.4.3.4.3, Impacts from Military Expended Materials discusses invertebrates; Section 3.5.3.4.3, Impacts from Military Expended Materials discusses habitats; Section 3.9.3.4.3, Impacts from Military Expended Materials and Section 3.9.3.6, Ingestion Stressors discusses birds). The Navy has standard operation procedures in place to reduce the amount of military expended materials (Section 2.3.3.5, Weapons Firing Safety), including recovering targets and associated parachutes to the maximum extent practicable.
92	<u>State:</u> S19-11	Recent research has shown that the use of seismic testing may cause reductions of fish abundances and diversity with acoustic increases as low as 170 dB re 1 μ Pa (Paxton et al. 2017). To reduce unnecessary adverse impacts to hard bottom habitat, it is suggested that all Navy activities be performed as far away from known hard bottom habitat to the greatest extent practicable. Known areas of hard bottom habitat can be found via: SEAMAP-SA mapping efforts, Moser and Taylor 1995, Crowson 1980, Lombardero et al. 2008, North Carolina Division of Marine Fisheries Artificial Reef website,	As a matter of practice, the Navy typically does not conduct certain activities in the coastal zone due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). While active sonars or other transducers can be used in shallower waters, only some clupeid species (e.g., Atlantic herring) may detect the associated sound pressures from a distance, these sources are not comparable to seismic testing sound. Most fish and invertebrate species can only detect particle motion at very close ranges. As discussed in Section 5.4.1 (Mitigation Areas for Seafloor Resources), the Navy will implement mitigation measures (e.g., avoiding bottom-placed explosives) to avoid or reduce potential impacts to shallow-water coral reefs, live hard bottom, artificial

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
92 (cont.)		USACE and NMFS EFH maps and HAPC maps.	<p>reefs, submerged aquatic vegetation, and shipwrecks. The Navy has developed new mitigation measures for Habitat Areas of Particular Concern for sandbar sharks, which are presented in Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States).</p> <p>As such, a relatively low number of pelagic surface or mid-water fishes and some benthic/deep-sea reef species may detect and react to distant sonar or other transducer noise. However, the available research presented in Paxton et al. 2017 does not support a biologically relevant effect on EFH because the brief alteration of underwater sound properties has not been shown to alter the ecological functions of the habitat (including hard bottom) for managed species. The Phase III AFTT Draft EIS/OEIS Section 3.6.3.1 contains more details and supports the conclusion of no adverse effect from sonars and other transducers. The effect of sparse and intermittent low-frequency sonar on fish and invertebrates (including species with designated EFH and HAPC) was therefore not considered significant as a NEPA determination and not substantial as an adverse effect on Essential Fish Habitat/HAPC.</p>
93	<u>State:</u> S23-01	<p>The NCWRC appreciates efforts made to minimize impacts to wildlife resources through the cooperative efforts of the Navy, NOAA, and USFWS. We request this cooperation continues and that as advances in technology, data, and knowledge of wildlife species occur, efforts are made toward continued reduction of direct, secondary, and cumulative resource impacts.</p> <p>To limit unintended impacts to nesting sea turtles on North Carolina beaches, we would like to request near shore, in-water activities adhere to the May 1 - November 15 sea turtle nesting moratorium.</p>	<p>The Navy will continue to work cooperatively with the appropriate regulatory agencies to ensure the best available science is used in the Navy analyses. As a matter of practice, the Navy typically does not conduct certain activities in the coastal zone due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). For activities that could potentially be conducted in a coastal zone, the Navy will avoid or reduce impacts to sea turtles to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented). The Navy has a mitigation measure specific to sea turtle nesting off North Carolina: from March through September within 3.2 NM of an estuarine inlet and within 1.6 NM of the shoreline in the Navy Cherry Point Range Complex, the Navy will not conduct explosive</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
93 (cont.)			<p>mine neutralization activities involving Navy divers to avoid sea turtles near nesting beaches during the nesting season (see Section 5.3.3.8, Explosive Mine Neutralization Activities Involving Navy Divers).</p> <p>As described in Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), the Navy analyzed numerous habitats in the Study Area (including nearshore habitats along the coast of North Carolina that overlap with the sea turtle habitat identified by the NCWRC) and determined that implementing additional mitigation in North Carolina coastal waters would not be practical.</p>
94	State: S23-02	We also are concerned with potential impacts from expended sonobuoys, torpedo ballast and other training targets on benthic habitats. The Navy has relied heavily on ocean currents and dispersal of debris over a large area and the DEIS concludes that there will be no significant impact to benthic habitats. However, we are concerned with the impacts from debris on wildlife resources and request consideration be made and efforts given to remove debris within project operations.	<p>The vast majority of military expended materials are expended seaward of state coastal zones where they are typically buried in a predominantly unstable soft bottom environment. The relatively few items that may sink slowly (e.g., parachutes) south of Cape Hatteras are likely carried along the coast by the Gulf Stream. For shores north of Cape Hatteras, Ribic et al. (2010) documented marine debris from ocean sources along the South Atlantic coast, including North Carolina, and found 7.5 items/500 meters of shoreline without noting any contribution from military expended materials. For this and other reasons, the effort it would take to scour the shore for likely rare items of military origin was deemed unnecessary. The Navy makes all practical efforts to recover targets as discussed in Section 2.3.3.5 (Weapons Firing Safety). Ribic, C.A., Sheavly, S.B., Rugg, D.J., & Erdmann, E.S. (2010). Trends and drivers of marine debris on the Atlantic coast of the United States 1997-2007. Marine Pollution Bulletin. 60: 1231-1242.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
95	<u>State:</u> S25-02	We suggest that training and testing operations requiring the use of underwater explosives be conducted as far offshore as possible and limited to the minimum time period practicable. Specific areas chosen for these operations should be selected to avoid areas of Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern (HAPC) as designated by the South Atlantic Fishery Management Council (SAFMC) and National Marine Fisheries Service (NMFS).	Mitigation measures related to live hard bottom and artificial reefs can be found in Section 5.4.1 (Mitigation Areas for Seafloor Resources), which includes a 350-yd. (320-m) radius mitigation zone around known locations. The mitigation measures listed in the Final EIS/OEIS are the result of consultation with NMFS with respect to EFH. The Navy has developed new mitigation measures for submerged aquatic vegetation and HAPC for sandbar sharks, which are presented in Section 5.4.1 (Mitigation Areas for Seafloor Resources) and Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), respectively.
96	<u>State:</u> S25-03	It is unclear to us whether or not the "Drill Minefield" in the nearshore waters off Charleston, SC (see Enclosure 2) is actually still active, and if so how it might be used in any future training operations.	The area identified as the "Drill Minefield" is not currently used to conduct underwater explosives training or testing.
97	<u>State:</u> S28-01	In order to avoid impacts to sea turtles, TPWD recommends avoiding training and testing activities along the mid and lower Texas coast during sea turtle nesting season (April through September).	<p>As a matter of practice, the Navy typically does not conduct certain activities in the coastal zone due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). For activities that could potentially be conducted in a coastal zone, the Navy will avoid or reduce impacts to sea turtles to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented) to ensure that the Proposed Action does not jeopardize the continued existence of endangered or threatened species, or result in destruction or adverse modification of critical habitat (as required under the Endangered Species Act). The Navy completed a full Biological Assessment and operational analysis of potential mitigation areas throughout the entire Study Area.</p> <p>Developing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
98	<u>State:</u> S28-02	Provisions for a cease and desist order for training and testing exercises should be considered in the event of a mass marine mammal stranding occurrence. Training and testing exercises should be suspended until an investigation can determine the cause of the stranding.	There has not been any stranding in the AFTT Study Area associated with Navy training and testing activities (see the 2017 technical report <i>Marine Mammal Strandings Associated with United States Navy Sonar Activities</i>). As part of the MMPA consultation in the NMFS Final Rule, a stranding plan was developed that details Navy actions in the event of a mass stranding that would be potentially linked to Navy activities.
99	<u>State:</u> S28-03	If impacts to the State's fish and wildlife resources cannot be avoided, potential impacts should be minimized to the extent practicable. Mitigation for unavoidable impacts to special aquatic sites, including wetlands, oyster reefs, seagrass beds, rookery islands and/or fish and wildlife species should be evaluated in the EIS/OEIS.	The AFTT Study Area does not include bays, estuaries, and wetlands in Texas, with the exception of civilian ports in Beaumont and Corpus Christi, which have been included in the environmental analysis. Furthermore, as a matter of practice, the Navy typically does not conduct certain activities in the coastal zone due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). The Navy submitted a Coastal Consistency Determination to the 18 states in the AFTT Study Area. For activities that could potentially be conducted in a coastal zone, the Navy will avoid or reduce impacts to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented) and mitigation areas (see Section 5.4, Mitigation Areas to be Implemented). The Navy completed a full Biological Assessment and operational analysis of potential mitigation areas throughout the entire Study Area. Developing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
100	<u>State:</u> S29-12	DCR-DNH recommends restricting any activities from April until August near preserves during migration/nesting activities for sea turtles and migratory birds.	As a matter of practice, the Navy typically does not conduct certain activities in the coastal zone due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). For activities that could potentially be conducted in a coastal zone, the Navy will avoid or reduce impacts to sea turtles to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented). Additionally, the Navy has a mitigation measure that applies year-round to reduce impacts on nesting birds from aircraft overflights within the VACAPES Range Complex and at Fisherman Island National Wildlife Refuge. Implementing additional mitigation in Virginia coastal waters would not be practical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.
101	<u>Local/Regional:</u> L05-02b	As a municipality located on a barrier island, we must be a good steward of our fragile and pristine environment. Whether it is monitoring Nags Head's water quality or protecting the turtles that nest on our beautiful beach, we take great pride in doing everything we can to ensure that future generations will also be able to experience the magnificence of the Outer Banks. As such, we must request that more research be conducted to fully understand the impacts of sonar and explosives on marine life and how those impacts can be mitigated.	The Navy has for years implemented a very broad and comprehensive range of measures to mitigate potential impacts on marine mammals from military readiness activities. As the EIS/OEIS documents in Chapter 5 (Mitigation), the Navy is increasing its mitigation measures to enhance protections of marine mammals to the maximum extent practicable. As noted in Section 3.0.1.1 of the EIS/OEIS, the Navy provides extensive investment for research programs in basic and applied research. In fact, the U.S. Navy is one of the largest sources of funding for marine mammal research in the world, which has greatly enhanced the scientific community's understanding of marine species much more generally. The Navy's support and conduct of cutting-edge marine mammal research includes: marine mammal detection, including the development and testing of new autonomous hardware platforms and signal processing algorithms for detection, classification, and localization of marine mammals; improvements in density information and development of abundance models of marine mammals; and advancements in

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
101 (cont.)			the understanding and characterization of the behavioral, physiological (hearing and stress response), and potentially population-level consequences of sound exposure on marine life. In addition, the Navy is a critical sponsor of the North Atlantic Right Whale EWS and the winter aerial surveys, which has contributed to a marked reduction in vessel strikes of the North Atlantic right whale in the Southeast critical habitat, particularly by commercial vessels which represents the greatest threat to the North Atlantic right whale.
102	<u>Individual:</u> KUNJE-02	I'm also asking for full commitment by the USN to protect marine species and habitat as this is directly connected to National Security under the current conditions challenging marine life by anthropogenic abrupt climate disruption at crisis levels; Naval activity will compound the collapse of marine habitats by adding additional toxic pollution release and likely resulting in harassment and 'takes' / deaths of marine species that are necessary for the health of our coastal waters.	The Navy is committed to developing and implementing mitigation to avoid or reduce potential impacts to marine species, cultural resources, and the marine environment to the maximum extent practicable. Chapter 5 (Mitigation) details the mitigation measures that the Navy will implement under the Proposed Action to avoid or reduce potential impacts from its training and testing activities. Additional information is included in Section 3.1 (Air Quality) and Section 3.2 (Sediments and Water Quality). The impacts of anthropogenically induced climate change on the marine environments is discussed in the individual resource sections as well as Chapter 4 (Cumulative Impacts).
103	<u>Individual:</u> MAREU-03, MAREU-04, MAREU-05, MAREU-06, MAREU-07 <u>State:</u> S19-08 <u>Organization:</u> O04-09	Six comments encouraged the Navy to avoid certain areas for testing and training and, or increase mitigation and monitoring to protect marine life, specifically benthic fishes and marine mammals.	The Navy is committed to developing and implementing mitigation to avoid or reduce potential impacts to marine species, cultural resources, and the marine environment to the maximum extent practicable. Chapter 5 (Mitigation) details the mitigation that the Navy will implement under the Proposed Action. Tables 5.6-1 and 5.6-2 summarize both the procedural and geographic mitigations to be implemented by the Navy for all applicable resources.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
104	<u>Organization:</u> O02-02	In addition, we recommend the Navy contact the NOAA Fisheries for updates on Voluntary Speed Restriction Zones and follow any recommendations to avoid ship strikes and encounters with the endangered North Atlantic Right Whale and other endangered and protected species.	As discussed in Section 5.3.4.1 (Vessel Movement), the Navy implements mitigation to avoid vessel strikes throughout the Study Area. The Navy developed a new procedural mitigation that entails broadcasting awareness notification messages with North Atlantic right whale Dynamic Management Area information (e.g., location and dates) to applicable Navy assets operating in the vicinity of the Dynamic Management Area. The information will alert assets to the possible presence of a North Atlantic right whale to maintain safety of navigation and further reduce the potential for a vessel strike. In addition to procedural mitigation for vessel strikes, the Navy implements several additional mitigation measures within the Northeast and Southeast North Atlantic Right Whale Mitigation Areas to further reduce the potential for vessel strikes (see Section 5.4, Mitigation Areas to be Implemented). For example, the Navy is a dedicated participant and sponsor of the EWS, which is a comprehensive information exchange network dedicated to reducing the risk of vessel strikes to North Atlantic right whales off the southeast United States from all mariners (i.e., Navy and non-Navy vessels). Before transiting or conducting training or testing activities, the Navy will initiate communication with the Fleet Area Control and Surveillance Facility, Jacksonville to obtain Early Warning System North Atlantic right whale sightings data. Within the Northeast North Atlantic Right Whale Mitigation Area, before vessel transits, the Navy will conduct a web query or email inquiry to the National Oceanographic and Atmospheric Administration NEFSC's North Atlantic Right Whale Sighting Advisory System to obtain the latest North Atlantic right whale sightings information. Vessels will use the obtained sightings information to reduce potential interactions with North Atlantic right whales in the mitigation areas.
105	<u>Organization:</u> O02-03	There are, however, growing concerns about the direct and indirect impacts of acoustic activities,	The Navy is committed to developing and implementing mitigation to avoid or reduce potential impacts to marine

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
105 (cont.)		including sonar and explosions, on marine mammals, fishes, and other species. The NOAA Ocean Noise Strategy Roadmap recognized that "sound is a fundamental component of the physical and biological habitat that many aquatic animals and ecosystems have evolved to rely on over millions of years." High intensity sound-producing activities such as sonar and explosions may harm marine life and should be minimized to the extent possible.	species, cultural resources, and the marine environment to the maximum extent practicable. Chapter 5 (Mitigation) details the mitigation that the Navy will implement under the Proposed Action.
106	<u>Organization:</u> O02-04	Avoiding or limiting training nearshore between May and October may minimize conflicts with the more intensive recreational and commercial fishing that occurs during the warmer months. If that is impossible, constraining those trainings to small and strategically timed areas should help ensure these activities are isolated from other fishing activities.	Many Navy at-sea training and testing ranges are accessible to the public for recreational and commercial purposes. The Navy strives to conduct training and testing activities in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions (Section 3.11, Socioeconomics). The Navy acknowledges that during specific exercises, its training and testing could briefly limit (usually for a matter of hours) public access to a very limited portion of coastal and ocean areas to ensure public safety. Notices to Mariners allow commercial and recreational fishing and tourism boats to adjust their routes to avoid temporary restricted areas. Socioeconomic Resources (Section 3.11) addresses the availability of access on the ocean and in the air and concludes there would be no impacts on commercial and recreational activities when Navy training and testing activities temporarily change access to the ocean or airspace in the Study Area. Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
107	<u>Organization:</u> O03-03	We urge the Navy to provide more information on its preferred alternative, which otherwise, based on the information presented in the DEIS, appears to have been designed on the basis of factors unrelated to avoiding or minimizing adverse impacts. To satisfy NEPA, the Navy should develop a fuller range of reasonable alternatives, such as by considering enhancements to its proposed time-area management measures.	The Navy's alternatives were developed in order to satisfy the Navy's purpose and need related to fulfilling its Title 10 requirements. Consistent with 40 C.F.R. 1502.14, the Navy has included a robust suite of mitigation measures, which will be implemented in both action alternatives (i.e. regardless of which alternative is selected). These mitigation measures, as well as standard operating procedures that Navy routinely employs, are discussed in detail and specifically inform the decision maker and the public how the Navy can avoid or minimize adverse impacts. NEPA identifies the application of mitigation measures, such as those suggested by the comment, to the alternatives "when not already included in the proposed action or alternatives" (40 C.F.R. 1502.14). Details regarding the development of reasonable alternatives are provided in Section 2.4, Action Alternative Development.
108	<u>Organization:</u> O03-04	For the six Mitigation Areas to effectively protect marine mammals they must be properly sited, and the management objectives for each must be based on the best available science and be precautionary in nature. Below, we evaluate each of the six proposed areas and highlight gaps, where they exist, in their geographic coverage and mitigation requirements. We subsequently highlight additional areas of geographic importance for marine mammals for which Mitigation Areas should be considered. Evaluation of proposed mitigation areas.	The Navy has worked collaboratively with NMFS to develop mitigation areas using inputs from the operational community, the best available science discussed in Chapter 3 (Affected Environment and Environmental Consequences), published literature, predicted activity impact footprints, and marine species monitoring and density data. The Navy completed an extensive Biological Assessment and operational analysis (based on a detailed and lengthy review by training experts and leadership responsible for meeting statutory readiness requirements) of potential mitigation areas throughout the entire Study Area. The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within the identified mitigation areas that is practical to implement under the Proposed Action. Operational input indicates that designating additional mitigation areas (including but not limited to: within the southern portion of the Northeast Canyons and Seamounts National Marine Monument [as suggested in NRDC comment b.ii],

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
108 (cont.)			<p>within the Charleston Bump[as suggested in NRDC comment 2.b], or within dolphin habitat within the Deepwater Horizon spill area [as suggested in NRDC comment 2.c]), expanding the boundary of mitigation areas (including but not limited to: to encompass the full extent of the Cape Hatteras Special Research Area [as suggested in NRDC comment d.i], or within De Soto canyon [as suggested in NRDC comment f.ii]), or implementing further restrictions on the level, number, or timing (seasonal or time of day) of training or testing activities within the mitigation areas (including but not limited to: limiting major training exercises and other activities to reduce cumulative exposures [as suggested in NRDC comment b.i] or implementing additional mitigation for minke whales at Cashes Ledge [as suggested in NRDC comment c.ii]) would have a significant impact on the ability for units to meet their individual training and certification requirements (preventing them from deploying with the required level of readiness necessary to accomplish their missions), on the ability to certify strike groups to deploy to meet national security tasking (limiting the flexibility of Combatant Commanders and warfighters to project power, engage in multi-national operations, and conduct the full range of naval warfighting capability in support of national security interests), on the ability of program managers and weapons system acquisition programs to meet testing requirements and required acquisition milestones; on operational costs (due to extending distance offshore, which would increase fuel consumption, maintenance, and time on station to complete required training and testing activities), on the safety risk associated with conducting training and testing at extended distances offshore (farther away from critical medical and search and rescue capabilities), on accelerated fatigue-life of aircraft and ships (leading to increased safety risk and higher maintenance costs), on training and testing realism (due to reduced access to necessary environmental or oceanographic conditions that</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
108 (cont.)			<p>replicate potential real world areas in which combat may occur), and/or on the ability for Navy Sailors to train and become proficient in using the sensors and weapons systems as would be required in a real world combat situation. Furthermore, the iterative and cumulative impact of all commenter-proposed mitigation areas and seasonal or temporal restrictions would essentially prohibit Navy training and testing using sonar and explosives along the entire east coast and most of the Gulf of Mexico except in very narrow fragmented timeframes that are not compatible with effective, realistic training and testing. It is unclear how the Navy would be able to train and test without access to the ranges and locations that have been carefully developed over decades. Additionally, it would deny operational commanders the ability to respond to emerging national security challenges, placing national security at risk and sailors in danger by not being properly prepared to perform their missions. Likewise, these restrictions would have a significant impact on the testing of current systems and the development of new systems. This would deny weapons system program managers and research, testing, and development program managers the flexibility to rapidly field or develop necessary systems due to the required use of multiple areas within limited timeframes.</p> <p>Therefore, implementing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical and would prevent the Navy from meeting its Title 10 requirements to successfully accomplish military readiness objectives. The Navy's mitigation measures were reviewed and approved by a four-star Admiral, the Fleet Commander of all Navy forces in the Study Area, and Navy Senior Leadership; therefore, additional permission or authorization from Navy Leadership prior to conducting training or testing in the Study Area would be redundant. Additional information regarding the operational importance, significant negative impacts on Navy</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
108 (cont.)			training and testing operations, and impracticality of implementing the mitigation area proposed by commenter in each geographic region mentioned is provided in the responses to Commenter Reference numbers 109 through 113, 116, 119, and 124 through 126, as well as in Chapter 5 (Mitigation) of the Final EIS/OEIS.
109	<u>Organization:</u> O03-05	<p>We recommend that the Navy strengthen the Mitigation Requirements in the Northeast North Atlantic Right Whale Mitigation Areas during the key months that the North Atlantic right whale is most likely to be using these areas to feed: April through June in the Great South Channel Mitigation Area and February through April in the Cape Cod Bay Mitigation Area. During these months, the Navy should prohibit the use of low-, mid-, or high-frequency active sonar for training and testing activities and limit the number of activities using non-explosive torpedoes to the extent practicable.</p> <p>To achieve a general prohibition while preserving flexibility, we strongly recommend that the Navy use an approach similar to that of the Conservation Council Settlement Agreement, which, while barring or restricting active sonar and explosives activities, reserved the Navy's authority to proceed regardless, provided the certain conditions were met: (1) that the Navy deemed the activity necessary for national defense; (2) that the authority could be invoked only by the highest Command authority; and (3) that any invocation of the authority be reported to NMFS and, through the Navy's Annual and 5-Year Exercise Reports, to the public. Conservation Council, Stipulated Settlement Agreement and Order. Such an approach would ensure consistency of application</p>	<p>In addition to the Navy's procedural mitigation described in Section 5.3 (Procedural Mitigation to be Implemented), the Navy will implement year-round mitigation to further protect North Atlantic right whales in their important feeding areas off the northeastern United States. The Navy has expanded the extent of the Northeast North Atlantic Right Whale Mitigation Area to encompass the entire northeast North Atlantic right whale critical habitat. The Navy will continue to submit annual training and testing activity reports to NMFS, which describe the level of training and testing conducted during the reporting period, and if unclassified, are made available to the public on the Navy's marine species monitoring webpage (https://www.navy-marinespeciesmonitoring.us/) and the NMFS Office of Protected Resources webpage.</p> <p>Navy Senior Leadership has approved and determined that the mitigation detailed in Chapter 5 (Mitigation) provides the greatest extent of protection that is practical to implement. The mitigation to obtain the latest sighting information from the North Atlantic Right Whale Sighting Advisory System will help vessels avoid North Atlantic right whales during all training and testing activities that occur in these areas.</p> <p>In its assessment of potential mitigation, the Navy has additional seasonal restrictions on active sonar and non-explosive torpedoes in North Atlantic right whale feeding areas off the northeastern United States in addition to the mitigation the Navy has proposed in this action. Navy operators determined that implementing additional mitigation beyond what is described in Section 5.4.2</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
109 (cont.)		and transparency, and would have the public's confidence.	<p>(Mitigation Areas off the Northeastern United States) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives. Some of the considerations regarding why it would be impractical to implement additional mitigation off the northeastern United States are provided below.</p> <p>The northeastern United States provides valuable access to air and sea space conditions that are analogous to areas where the Navy operates, or may need to operate in the future. Operating in these waters helps to ensure safety of personnel, skill proficiency, and validation of testing program requirements. For training, areas in this region where exercises are scheduled to occur are chosen to allow for the realistic tactical development of the myriad of training scenarios that Navy units are required to complete to be mission effective.</p> <p>Locations for training activities are chosen due to the proximity to training ranges (e.g., Boston Operating Area), available airspace (e.g., warning area W107A in the Atlantic City Range Complex), unobstructed sea space (e.g., throughout the Narragansett Operating Area), aircraft emergency landing fields (e.g., Quonset Point Air National Guard Base, Quonset Point, RI), and with consideration for public safety (e.g., located a safe distance away from commercial fishing activities).</p> <p>For testing, areas are chosen to allow the Navy to test systems and platforms in a variety of bathymetric and environmental conditions to ensure functionality and accuracy in real world environments. Off the northeastern United States, the Navy has used the same torpedo testing areas for decades because they provide critical bathymetric features and consistency for comparative data collection without any discernable degradation of the marine environment or impact to marine species. Testing</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
109 (cont.)			<p>ranges are typically located near the support facilities of the systems commands, which provide critical safety and infrastructure support and technical expertise necessary to conduct range testing. For example, the Navy performs acoustic and oceanographic research in continental shelf areas off the northeastern United States that involves active acoustic transmissions used for engineering tests of acoustic sources, validation of ocean acoustic models, tests of signal processing algorithms, and characterization of acoustic interactions with the ocean bottom.</p> <p>Following the publication of the 2013 Hawaii Southern California Training and Testing (HSTT) Final EIS/OEIS, a 2015 settlement agreement prohibited or restricted Navy activities within specific areas in the HSTT Study Area.</p> <p>The provisional prohibitions and restrictions on activities within the HSTT Study Area were derived pursuant to negotiations with plaintiffs and were specifically not evaluated or selected based on the type of thorough examination of best available science that occurs through the consultation process under the MMPA, or through analysis conducted for NEPA purposes. The agreement did not constitute a concession by the Navy as to the potential impacts of Navy activities on marine mammals, or any other marine species. Furthermore, the Navy's adoption of restrictions on its activities as part of a relatively short-term settlement does not mean that those restrictions are necessarily supported by the best available science, practical to implement from a military readiness standpoint over the longer term (in either the HSTT Study Area or other Study Areas, such as AFTT). Furthermore, the Fleet Commander and Navy Senior Leadership have approved the mitigation for the AFTT Study Area as described in Chapter 5 (Mitigation); therefore, additional permission or authorization from Navy Leadership is not required prior to conducting training</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
109 (cont.)			or testing in the Study Area with regard to mitigation implementation.
110	<u>Organization:</u> O03-06	<p>Notably absent from the Northeast North Atlantic Right Whale Mitigation Areas is the biologically important feeding area identified for Jeffrey's Ledge between June-July and October-December, and the biologically important mating area in the Central Gulf of Maine from November to January (LaBreque et al. 2015).</p> <p>These areas should be afforded the same level of more stringent protection (including our additional recommendations noted above) as the two Northeast Mitigation Areas, at least for the months defined by LaBreque and colleagues (2015). Of particular note, Jeffrey's Ledge is located due east of the Portsmouth Naval Shipyard, potentially heightening the risk of vessel collision for North Atlantic right whales feeding in this area. Given the vulnerability of the species to vessel collisions, it is essential that the 10-knot vessel speed restriction required for the existing two Northeast North Atlantic Right Whale Mitigation Areas also be observed for within the boundaries of Jeffrey's Ledge, at minimum between the months of June-July and October-December, as defined by LaBreque et al. (2015).</p>	<p>As discussed in Section 5.4.2 (Mitigation Areas off the Northeastern United States), the Navy has expanded the extent of the Northeast North Atlantic Right Whale Mitigation Area to encompass the entire northeast North Atlantic right whale critical habitat. The North Atlantic right whale feeding area on Jeffreys Ledge and the mating area in the central Gulf of Maine are located within this expanded mitigation area. Mitigation to limit the use of active sonar to the maximum extent practicable and not use certain explosive and non-explosive munitions will help the Navy further avoid or reduce potential impacts on North Atlantic right whales year-round in their most important feeding areas, a mating area, and the northern portion of their migration habitat. The commenter-identified feeding and mating areas are also located within the Gulf of Maine Planning Awareness Mitigation Area, which will further avoid or reduce impacts from active sonar on marine mammals that inhabit, feed in, mate in, or migrate through the mitigation area.</p> <p>There have been no Navy vessel strikes with North Atlantic right whales since implementation of mitigation measures and Standard Operating Procedures. As discussed in Section 5.3.4.1 (Vessel Movement), the Navy implements procedural mitigation to avoid vessel strikes throughout the Study Area. As described in Section 2.3.3 (Standard Operating Procedures) Navy vessels operate in accordance with the navigation rules established by the U.S. Coast Guard, which require that vessels proceed at a safe speed so that proper and effective action can be taken to avoid collision and be stopped within a distance appropriate to the</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
110 (cont.)			<p>prevailing circumstances and conditions. The Navy developed a new procedural mitigation that entails broadcasting awareness notification messages with North Atlantic right whale Dynamic Management Area information (e.g., location and dates) to applicable Navy assets operating in the vicinity of the Dynamic Management Area. The information will alert assets to the possible presence of a North Atlantic right whale to maintain safety of navigation and further reduce the potential for a vessel strike. As described in Section 5.4.2 (Mitigation Areas off the Northeastern United States), the Navy implements speed restrictions in the Northeast North Atlantic Right Whale Mitigation Area year-round during non-explosive torpedo activities. The Navy can implement a 10-knot speed restriction during certain portions of non-explosive torpedo activities due to the nature of how these activities are conducted (e.g., during transits and normal firing, maintaining a speed of no more than 10 knots still allows the Navy to meet associated mission requirements). In its assessment of potential mitigation, the Navy considered implementing additional vessel speed restrictions (e.g., expanding the 10-knot restriction to other activities off the northeastern United States). Navy determined that implementing additional vessel speed restrictions beyond what is described in Section 5.4.2 (Mitigation Areas off the Northeastern United States) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives.</p> <p>For example, the Navy will not implement a 10-knot speed restriction during submarine target firing for non-explosive torpedo testing activities because it would prevent the Navy from properly testing vessel and system capabilities.</p> <p>As described in Section 5.3.4.1 (Vessel Movement), any additional vessel speed restrictions would prevent vessel operators from</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
110 (cont.)			gaining skill proficiency, would prevent the Navy from properly testing vessel capabilities, or would increase the time on station during training or testing activities as required to achieve skill proficiency or properly test vessel capabilities (which would significantly increase fuel consumption); therefore, the mitigation proposed by the comment would have significant impacts on the Navy's ability to train and test, and would prevent the Navy from meeting its mission requirements.
111	<u>Organization:</u> O03-07	We therefore recommend that the Navy consider prohibiting the planning and conduct of major exercises within these areas, using the Conservation Council approach, as summarized at section III.B.1.a above, to provide flexibility.	<p>The commenter indicated that range-limited beaked whale populations have been found on the shelf break off Cape Hatteras, areas off Canada, in the Mediterranean, off Southern California, in the Bahamas, and around the Hawaiian Islands; and range-limited sperm whale populations have been found off Cape Hatteras, the Gulf of Mexico, and off Western Australia. The commenter assumed that beaked whales and sperm whales are also range-limited within the Northeast Planning Awareness Mitigation Areas, and as a result, recommended additional mitigation to limit major training exercises and other activities to reduce cumulative exposure in the Northeast Planning Awareness Mitigation Areas. However, the best available science does not indicate that beaked whales and sperm whales are range-limited within the Northeast Planning Awareness Mitigation Areas.</p> <p>As described in Section 3.7.3.1.2.3 (Impacts from Sonar and Other Transducers Under the Action Alternatives), a few minor to moderate TTS or behavioral reactions to an individual over the course of a year are unlikely to have any significant costs or long-term consequences for that individual. Considering these factors and the mitigation measures that would be implemented as described in Section 5.3.2.1 (Active Sonar) and Section 5.4.2 (Mitigation Areas off the Northeastern United States), long-term</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
111 (cont.)			consequences for the species or stocks are not expected. The Navy does not typically schedule major training exercises in the Northeast Range Complexes, where the Northeast Planning Awareness Mitigation Area is located, as indicated in Table 2.6-1 (Proposed Training Activities per Alternative) and Table 5.4-2 (Mitigation Areas off the Northeastern United States). For training and testing that does occur here, this area provides a wide range of bathymetric and topographic opportunities that support critical smaller scale training and testing necessary to meet mission requirements. Additionally, major training exercises originally planned for other locations may have to change during an exercise, or in exercise planning, based on an assessment of the performance of the units, or due to other conditions such as weather and mechanical issues. These contingency requirements preclude the Navy from completely prohibiting major training exercises from occurring in this area.
112	<u>Organization:</u> O03-08	If major exercises cannot absolutely be avoided, the Navy should consider prohibiting conduct of more than two major exercises per year, with each exercise carried out in different Northeast Planning Awareness Mitigation Areas (i.e., one exercise in the northern Mitigation Area, and one exercise in the southern Mitigation Area), to ensure that marine mammal populations with site fidelity are not exposed to multiple major training exercises within a single year. Similarly, the Navy should consider prohibiting testing and unit-level sonar and in-water explosives training in the Areas, or alternatively, and less preferably, reducing the number of hours allowable in a given year, with the prohibition or restriction structured as in Conservation Council to provide flexibility.	<p>In its assessment of potential mitigation, the Navy considered implementing additional restrictions on active sonar and explosives in the Northeast Canyons and Seamounts National Marine Monument. Navy's operational assessment determined that implementing additional mitigation for the reasons stated in Section 5.4.2 (Mitigation Areas off the Northeastern United States) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives.</p> <p>While the Navy reviewed each additional mitigation measure recommended by the commenter, the Navy also reviewed all of these measures comprehensively. Adopting all of the limitations on training and testing suggested by the commenter would result in the Navy effectively losing access to the significant majority of the required training space necessary to comply with the Navy's statutory requirement to prepare a ready force.</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
112 (cont.)			<p>As noted in Chapter 2, the Navy also requires extensive sea space so that individual training and testing activities can occur at sufficiently safe distances such that these activities do not interfere with one another and so that Navy units can train to communicate and operate in a coordinated fashion over tens or hundreds of square miles, as they will have to do when in an operational theater. The Navy must also train in these areas because it may be called upon to defend the United States from direct maritime threats, and the Navy must therefore be familiar with the very waters where it may engage in combat. Enemy naval forces have historically and consistently operated in U.S. waters, from the conflicts following the U.S.'s independence, the World Wars, and through the Cold War. To this day, foreign naval forces operate in U.S. waters, sometimes clandestinely. To completely ban entire areas from training and testing means the Navy will not be able to train in the very waters where it may need to fight and defend the U.S., thus creating potential sanctuaries where foreign naval forces, and submarines in particular, may operate more freely.</p> <p>The commenter proposes, in the alternative to banning Navy training and testing, that the Navy require approval in nearly every area where the Navy currently trains and tests from the "highest command authority." It is unclear who the commenter means by this in that the highest command authority for the military is the President. Assuming the commenter is referring to very senior military commanders, such a requirement is unwarranted and impractical. As noted in Chapter 2 (Description of Proposed Action and Alternatives), the Navy conducts thousands of discrete training and testing activities, many involving sonar and explosives. In most cases, these events are small-scale unit-level training activities or testing events with minimal to no impacts on marine mammals and the environment. To require that each</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
112 (cont.)			<p>individual event be approved at such an elevated level of command, and for all of the areas proposed by the commenter, would essentially paralyze Navy decision-making as senior commanders would be focused on approving otherwise minor and minimally impactful activities. This would lead to fewer training and testing evolutions and decreased readiness, and increasing the risk to Sailors, platforms, and equipment. For major training events, senior commanders are already part of the planning and approval processes for the conduct of the event. Adding the proposed approval scheme would also be redundant for AFTT because the Navy's mitigation measures described in Chapter 5 (Mitigation) were reviewed and approved by a four-star Admiral, the Fleet Commander of all Navy forces in the Study Area, and Navy Senior Leadership. While the approval scheme may have been supportable as a short-term settlement measure, it is inappropriate for a long-term approach, is not supported at the scale suggested by the commenter in AFTT, is otherwise not warranted based on the extensive level of mitigation already approved by senior Navy leadership, and creates additional administrative burdens on operational commanders distracting them from preparing a ready force. At its most fundamental level an approval scheme of this type runs counter to one of the foundational concepts of naval command and control at sea – which is the ability and duty for a commanding officer to train and fight their ship. As such, the Navy works to institutionalize mitigation procedures in order to ensure that these measures are implemented efficiently and consistently across the Navy. To accomplish this, the Navy has developed a software tool known as the Protective Measures Assessment Protocol (see Section 5.1.2, Compliance Initiatives) to reduce the administrative burdens of environmental compliance on commanders while ensuring required mitigation is implemented correctly. Nor does the excessive level of mitigation proposed by the commenter appear</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
112 (cont.)			<p>warranted when compared to the level of environmental impact anticipated from Navy training and testing. The Navy has been training and testing in these areas for decades without causing any discernable degradation of the marine environment or to marine species. Many of the impacts to marine species noted by the commenter, such as the increase in ambient ocean noise, marine mammal injuries, and vessel strikes, are caused primarily by other activities, such as commercial fishing and commercial shipping. In the last 25 years, commercial shipping has increased 400%, and the amount of food we obtain from the sea has increased 10-fold. Yet, during this time, the U.S. Navy has become smaller, and its levels of activities have lessened as a result. The Navy represents an extremely small percentage of overall marine activities, and these other activities represent the overwhelming proportion of impacts on the marine environment, yet the mitigation measures proposed by the commenter would impose some of the most stringent and restrictive of any requirements on any other marine activity, measures that potentially mitigate mostly short-term and minor environmental impacts, and would essentially preclude effective Navy training and testing.</p> <p>Chapter 5 contains a detailed discussion of mitigation that includes limitations on sonar and explosives use, time/area restrictions, planning areas that elevate environmental considerations, and a reporting system. The Navy's mitigation measures represent the greatest level of mitigation that is practical to implement, when balanced against impacts to safety, sustainability, and the Navy's ability to continue meeting its mission requirements. The Navy's mitigation measures were reviewed and approved by a four-star Admiral, the Fleet Commander of all Navy forces in the Study Area, and Navy Senior Leadership.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
113	<u>Organization:</u> O03-09	We commend the Navy for their proposal to not plan major training exercises within such a large geographic area; however, the Gulf of Maine Planning Awareness Mitigation Area encompasses a number of habitat areas important for a number of endangered and sensitive species, and so, at least in some areas and at certain times, additional mitigation measures are warranted. <i>(Additional measures commenter refers to are addressed as individual comments in this appendix.)</i>	<p>The northeastern United States provides valuable access to air and sea space conditions that are analogous to areas where the Navy operates, or may need to operate in the future. This contributes to safety of personnel, skill proficiency, and validation of testing program requirements. For training, areas in this region where exercises are scheduled to occur are chosen to allow for the realistic tactical development of the myriad of training scenarios that Navy units are required to complete to be mission effective. Locations for training activities are chosen due to the proximity to training ranges (e.g., Boston Operating Area), available airspace (e.g., warning area W107A in the Atlantic City Range Complex), unobstructed sea space (e.g., throughout the Narragansett Operating Area), aircraft emergency landing fields (e.g., Quonset Point Air National Guard Base, Quonset Point, Rhode Island), and with consideration for public safety (e.g., located a safe distance away from commercial fishing activities). For testing, areas are chosen to allow the Navy to test systems and platforms in a variety of bathymetric and environmental conditions to ensure functionality and accuracy in real world environments.</p> <p>Testing ranges are typically located near the support facilities of the systems commands, which provide critical safety and infrastructure support and technical expertise necessary to conduct range testing. For example, the Navy performs acoustic and oceanographic research in continental shelf areas off the northeastern United States that involves active acoustic transmissions used for engineering tests of acoustic sources, validation of ocean acoustic models, tests of signal processing algorithms, and characterization of acoustic interactions with the ocean bottom. The Navy will continue to submit annual training and testing activity reports to NMFS (some data is classified), which describe the level of training and testing conducted during the reporting period, and the unclassified data are made available to the public on the Navy's marine species monitoring webpage</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
113 (cont.)			(https://www.navy Marinespeciesmonitoring.us/) and the NMFS Office of Protected Resources webpage. Implementing additional mitigation in mitigation areas off the northeastern United States beyond what is described in Section 5.4.2 (Mitigation Areas off the Northeastern United States) be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.
114	<u>Organization:</u> O03-10	The harbor porpoise is particularly sensitive to disturbance from noise, and these impacts are may lead to population-level effects when a population is resident to a limited geographic area. The Gulf of Maine Planning Awareness Mitigation Area includes a biologically important area for the small population of harbor porpoise resident to the Gulf of Maine from July-September. Within the boundaries of this area between the months of July- September, the Navy should prohibit the use of mid- and high-frequency sonar for training and testing activities and prohibit the use of in-water explosives for training and testing activities.	As described in Chapter 3.7 (Marine Mammals), with additional details in sections 3.7.2.3.27.2 (Habitat and Geographic Range), 3.7.3 (Environmental Consequences), 3.7.4 (Summary of Potential Impacts on Marine Mammals), and 3.7.6 (Marine Mammal Protection Act Determinations), where the analysis does consider the factors discussed in the Forney, K.A., et. al. 2017 paper, it is unlikely that any takes resulting from training and testing activities would cause the harbor porpoise to abandon the BIA cited by the commenter. The activities conducted by Navy are of short duration (minutes to a few hours) and widely dispersed temporally and geographically, therefore, would not significantly affect an animal's natural behavioral patterns such as feeding, breeding, etc., where those impacts will affect stocks or populations. Additionally, the Navy has been conducting training and testing in these areas and at similar levels of activity for decades with no evidence those activities are having a measurable impact on stocks or populations. As discussed in Section 5.4.2 (Mitigation Areas off the Northeastern United States), the Navy has expanded the extent of the Northeast North Atlantic Right Whale Mitigation Area to encompass the entire northeast North Atlantic right whale critical habitat. The newly expanded mitigation area now covers the extent of the harbor porpoise small and resident population area. Mitigation to limit the use of active sonar to the maximum extent practicable and not use certain explosive and non-explosive munitions within the

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
114 (cont.)			mitigation area will help the Navy further avoid or reduce potential impacts on harbor porpoises year-round.
115	<u>Organization:</u> O03-11, O03-12, O03-13	<p>Three comments recommend that the Navy prohibit the use of active sonar and in-water explosions. Specifically in the following areas:</p> <ul style="list-style-type: none"> • Biologically important feeding habitat for minke whales at Cashes Ledge • Northeast Canyons and Seamounts National Marine Monument 	<p>The Navy has worked collaboratively with NMFS to develop mitigation areas using inputs from the operational community, the best available science discussed in Chapter 3 (Affected Environment and Environmental Consequences), published literature, predicted activity impact footprints, and marine species monitoring and density data. The Navy completed an extensive Biological Assessment and operational analysis (based on a detailed and lengthy review by training experts and leadership responsible for meeting statutory readiness requirements) of potential mitigation areas throughout the entire Study Area. The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within the identified mitigation areas that is practical to implement under the Proposed Action.</p> <p>Operational input indicates that designating additional mitigation areas (including but not limited to: within the southern portion of the Northeast Canyons and Seamounts National Marine Monument [as suggested in NRDC comment b.ii], within the Charleston Bump [as suggested in NRDC comment 2.b], or within dolphin habitat within the Deepwater Horizon spill area [as suggested in NRDC comment 2.c]), expanding the boundary of mitigation areas (including but not limited to: to encompass the full extent of the Cape Hatteras Special Research Area [as suggested in NRDC comment d.i], or within De Soto canyon [as suggested in NRDC comment f.ii]), or implementing further restrictions on the level, number, or timing (seasonal or time of day) of training or testing activities within the mitigation areas (including but not limited to: limiting major training exercises and other activities to reduce cumulative exposures [as suggested in NRDC comment b.i] or implementing additional mitigation for minke whales at Cashes Ledge [as suggested in NRDC comment</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
115 (cont.)			<p>c.ii)] would have a significant impact on the ability for units to meet their individual training and certification requirements (preventing them from deploying with the required level of readiness necessary to accomplish their missions), on the ability to certify strike groups to deploy to meet national security tasking (limiting the flexibility of Combatant Commanders and warfighters to project power, engage in multi-national operations, and conduct the full range of naval warfighting capability in support of national security interests), on the ability of program managers and weapons system acquisition programs to meet testing requirements and required acquisition milestones; on operational costs (due to extending distance offshore, which would increase fuel consumption, maintenance, and time on station to complete required training and testing activities), on the safety risk associated with conducting training and testing at extended distances offshore (farther away from critical medical and search and rescue capabilities), on accelerated fatigue-life of aircraft and ships (leading to increased safety risk and higher maintenance costs), on training and testing realism (due to reduced access to necessary environmental or oceanographic conditions that replicate potential real world areas in which combat may occur), and/or on the ability for Navy Sailors to train and become proficient in using the sensors and weapons systems as would be required in a real world combat situation. Furthermore, the iterative and cumulative impact of all commenter-proposed mitigation areas and seasonal or temporal restrictions would essentially prohibit Navy training and testing using sonar and explosives along the entire east coast and most of the Gulf of Mexico except in very narrow fragmented areas and timeframes that are not compatible with effective, realistic training and testing. It is unclear how the Navy would be able to train and test without access to the ranges and locations that have been carefully developed over decades. Additionally, it would deny</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
115 (cont.)			<p>operational commanders the ability to respond to emerging national security challenges, placing national security at risk and sailors in danger by not being properly prepared to perform their missions. Likewise, these restrictions would have a significant impact on the testing of current systems and the development of new systems. This would deny weapons system program managers and research, testing, and development program managers the flexibility to rapidly field or develop necessary systems due to the required use of multiple areas within limited timeframes. Therefore, implementing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical and would prevent the Navy from meeting its Title 10 requirements to successfully accomplish military readiness objectives.</p> <p>The Navy's mitigation measures were reviewed and approved by a four-star Admiral, the Fleet Commander of all Navy forces in the Study Area, and Navy Senior Leadership; therefore, additional permission or authorization from Navy Leadership will not be required prior to conducting training or testing in the Study Area with regard to mitigation implementation. Additional information regarding the operational importance, significant negative impacts on Navy training and testing operations, and impracticality of implementing the mitigation area proposed by commenter in each geographic region mentioned is provided in the responses to Commenter Reference numbers 109 through 113, 116, 119, and 124 through 126, as well as in Chapter 5 (Mitigation) of the EIS/OEIS.</p>
116	<u>Organization:</u> O03-14	The Navy proposes two Mid-Atlantic Planning Awareness Mitigation Areas, one of which is situated within the North Atlantic right whale migratory corridor and includes waters seaward of Cape Hatteras to the shelf break, including a central portion of the Cape Hatteras Special Research Area	The waters off the mid-Atlantic and southeastern United States encompass part of the primary water space in the AFTT Study Area where unit-level training, integrated training, and deployment certification exercises occur, and are critical for these and other training and testing activities. The Navy conducts training and testing activities off the mid-Atlantic and southeastern United

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
116 (cont.)		("CHSRA"), and a portion of the shelf break to the south. The second encompasses a north-south portion of the North Atlantic right whale migratory corridor offshore of Virginia.	<p>States because this region provides valuable access to air and sea space conditions that are analogous to areas where the Navy operates, or may need to operate in the future. This contributes to safety of personnel, skill proficiency, and validation of testing program requirements. For training and testing, areas in this region where exercises are scheduled to occur are chosen to allow for the realistic tactical development of the myriad of training and testing scenarios that Navy units are required to complete to be mission effective. Certain activities, such as deployment certification exercises using integrated warfare components, require large areas of the littorals and open ocean for realistic and safe training.</p> <p>Locations for other training and testing activities are chosen due to the proximity of associated training and testing ranges and operating areas (e.g., VACAPES), available airspace (e.g. W-50), unobstructed sea space, aircraft emergency landing fields (e.g., Naval Air Station Oceana), and with consideration for public safety (e.g., avoiding areas popular for recreational boating). Further restrictions in this area (e.g., further restricting the number of major training events or seasonal restrictions on major training exercises based on predicted density of marine mammal species) for mitigation would be impractical to implement and would significantly impact the scheduling, training, and certifications required to prepare naval forces for deployment. Seasonal or temporal restrictions would not be practical to implement for all training and testing in this region (including within the Cape Hatteras Special Research Area) because training and testing schedules are based on national tasking, the number and duration of training cycles identified in the Optimized Fleet Response Plan and various training plans, and forecasting of future testing requirements (including emerging requirements). Although the Navy has the ability to restrict, as identified in Table 5.4-3 (Mitigation Areas off the Mid-Atlantic and Southeastern United</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
116 (cont.)			States), the number of major training exercises in the Mid-Atlantic Planning Awareness Mitigation Areas, the Navy is unable to prohibit all major training exercises in this area, as it provides air and sea conditions necessary to meet real world requirements. Additionally, major training exercises originally planned for other locations may have to change during an exercise, or in exercise planning, based on an assessment of the performance of the units, or due to other conditions such as weather and mechanical issues. These contingency requirements preclude the Navy from completely prohibiting major training exercises from occurring in this area.
117	<u>Organization:</u> O03-15	These range-restricted populations are therefore all at risk of cumulative exposure to multiple training and testing activities, including multiple major exercises per year, which may lead to population-level consequences.	While these species may show site fidelity to this area, tagging data indicates they also move throughout the central western Atlantic area and are not range-restricted (Thorne et al. 2017, Baird et al. 2018). As described in section 3.7.3.1 (Acoustic Stressors) and Section 3.7.3.2 (Explosive Stressors), the Navy does not anticipate population-level impacts to marine mammals from the Proposed Action, including to beaked whales, pilot whales, and sperm whales at Cape Hatteras or elsewhere in the U.S. Mid-Atlantic region. Additionally, the Navy has been conducting training and testing in these areas and at similar levels of activity for decades with no evidence those activities are having an impact on stocks or populations of any of the species mentioned.
118	<u>Organization:</u> O03-16, O03-17, O03-18	Three comments suggested if major exercises cannot be avoided in the Cape Hatteras Special Research Area then the amount conducted should be limited, specifically in Mitigation Areas.	In its assessment of potential mitigation, the Navy considered implementing additional restrictions on active sonar and explosives in the U.S. mid-Atlantic region, including expanding the boundaries of the mitigation area to fully encompass the Cape Hatteras Special Research Area, limiting major training exercises, and planning activities to avoid times of predicted high North Atlantic right whale density. Navy operators determined that implementing additional mitigation beyond what is described in Section 5.4.3 (Mitigation Areas off the mid-Atlantic and Southeastern United States) would be impractical due to

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
118 (cont.)			<p>implications for safety, sustainability, and the Navy’s ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives. Some of the considerations regarding why it would be impractical to implement additional mitigation in the U.S. mid-Atlantic region are provided below.</p> <p>The waters off the mid-Atlantic and southeastern United States encompass part of the primary water space in the AFTT Study Area where unit-level training, integrated training, and deployment certification exercises occur, and are critical for these and other training and testing activities. The Navy conducts training and testing activities off the mid-Atlantic and southeastern United States because this region provides valuable access to air and sea space conditions that are analogous to areas where the Navy operates, or may need to operate in the future. This contributes to ensure safety of personnel, skill proficiency, and validation of testing program requirements. Areas in this region where activities are scheduled to occur are chosen to allow for the realistic tactical development of the myriad training and testing scenarios that Navy units are required to complete to be mission effective. Certain activities, such as deployment certification exercises using integrated warfare components, require large areas of the littorals and open ocean for realistic and safe training. Locations for other training and testing activities are chosen due to the proximity of associated training and testing ranges and operating areas (e.g., VACAPES), available airspace (e.g. W-50 in VACAPES), unobstructed sea space, aircraft emergency landing fields (e.g., Naval Air Station Oceana), and with consideration for public safety (e.g., avoiding areas popular for recreational boating). Further restrictions in this area (e.g., further restricting the number of major training events or seasonal restrictions on major training exercises based on predicted density of marine mammal species, such as North Atlantic right whales) for</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
118 (cont.)			<p>mitigation would be impractical to implement and would significantly impact the scheduling, training, and certifications required to prepare naval forces for deployment.</p> <p>Seasonal or temporal restrictions would not be practical to implement for all training and testing in this region (including within the Cape Hatteras Special Research Area) because training and testing schedules are based on national tasking, the number and duration of training cycles identified in the Optimized Fleet Response Plan and various training plans, and forecasting of future testing requirements (including emerging requirements). Although the Navy has the ability to restrict, as identified in Table 5.4-3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), the number of major training exercises in the Mid-Atlantic Planning Awareness Mitigation Areas, the Navy is unable to prohibit all major training exercises in this area, as it provides air and sea conditions necessary to meet real world requirements. Additionally, major training exercise locations may have to change during an exercise, or in exercise planning, based on an assessment of the performance of the units, or due to other conditions such as weather and mechanical issues, which precludes the ability to completely prohibit major training exercises from occurring in this area.</p>
119	<u>Organization:</u> O03-19	In full acknowledgement of the Navy's position that additional mitigation for training and testing activities across the expanded Critical Habitat area may compromise national security, as well as the determination by NMFS that the definition of areas should be based on areas of predicted high North Atlantic right whale density, we suggest that the Navy assess its planned activities across the broader high density area described above and consider additional mitigation measures for at least those activities that may cause the most harm (i.e., low-	The Navy developed a new procedural mitigation that entails broadcasting awareness notification messages with North Atlantic right whale Dynamic Management Area information (e.g., location and dates) to applicable Navy assets operating in the vicinity of the Dynamic Management Area. The information will alert assets to the possible presence of a North Atlantic right whale to maintain safety of navigation and further reduce the potential for a vessel strike. Within the Mid-Atlantic and southeastern region, the Navy identified an opportunity to expand the mitigation area for North Atlantic right whales off the southeastern United States in a way that would enhance protections for the species, while

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
119 (cont.)		frequency and hull-mounted mid- frequency active sonar, dipping sonar, and in-water detonations and explosives). In addition, the dynamic vessel speed reduction strategy should be observed throughout this high density area.	<p>balancing the practicality of implementation. The Navy expanded 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. Certain activities, such as deployment certification exercises using integrated warfare components, require large areas of the littorals and open ocean for realistic and safe training.</p> <p>Locations for other training activities are chosen due to the proximity of associated training ranges (e.g., Jacksonville Range Complex), available airspace (e.g., avoiding airspace conflicts with major airports such as Jacksonville International Airport), unobstructed sea space, aircraft emergency landing fields (e.g., Naval Air Station Jacksonville), and with consideration for public safety (e.g., avoiding areas popular for recreational boating). The Jacksonville Operating Area and Charleston Operating Area represent critical training sea spaces that are necessary to prepare naval forces for combat. Areas where testing events are scheduled to occur are chosen to allow the Navy to test systems and platforms in a variety of bathymetric and environmental conditions to ensure functionality and accuracy in real world environments. Test locations are typically located near the support facilities of the systems commands, which provide critical safety, platform, and infrastructure support and technical expertise necessary to conduct testing (e.g., proximity to air squadrons). Additional mitigation, such as expanding the Southeast North Atlantic Right Whale Mitigation Area eastward to mirror the boundary of the expanded critical habitat or northward to encompass all areas of high animal density, would require training to move farther north or farther out to sea, which would be impractical due to implications for safety and sustainability, as detailed in Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States).</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
120	<u>Organization:</u> O03-20	Dipping sonar should be prohibited within the Southeast North Atlantic Right Whale Mitigation Area.	As discussed in Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), the Navy will minimize the use of helicopter dipping sonar to the maximum extent practicable. The only helicopter dipping sonar activity that could potentially be conducted in the mitigation area is Kilo Dip, which could involve 1-2 pings of active sonar infrequently. Kilo Dip is a functional check activity that needs to occur close to an air station in the event of a system failure (i.e., all systems are not functioning properly). During this activity, the Navy will implement the procedural mitigation described in Section 5.3.2.1 (Active Sonar), with visual observations aided by EWS North Atlantic right whale sightings data.
121	<u>Organization:</u> O03-21	The Navy should also prohibit low-frequency active sonar within the Southeast North Atlantic Right Whale Mitigation Area.	As discussed in Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), the Navy will not conduct low-frequency active sonar in the mitigation area, with the exception of low-frequency active sonar used for navigation training, which will be minimized to the maximum extent practicable. During this activity, crews train to operate sonar for navigation, an ability that is critical for safety while transiting into and out of port during periods of reduced visibility. The Navy will implement the procedural mitigation described in Section 5.3.2.1 (Active Sonar), with visual observations aided by EWS North Atlantic right whale sightings data.
122	<u>Organization:</u> O03-22	Should the Navy choose Alternative 2, we urge the Navy to plan major training exercises, if they are absolutely necessary, in other operating areas that do not directly overlap with areas in which small resident populations of endangered whales reside.	At this time, the Navy's preferred alternative is Alternative 1.
123	<u>Organization:</u> O03-23	Regardless of the alternative chosen, and recognizing the limitations discussed at 5-78, the Navy should also consider prohibiting or strictly limiting testing and unit-level training of active sonar and in-water explosives to the greatest extent practicable within	The Gulf of Mexico encompasses part of the primary water space in the AFTT Study Area where unit-level training, integrated training, and deployment certification exercises occur (as well as supporting composite training unit exercises proposed only under Alternative 2), and are critical for these and other training and

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
123 (cont.)		these areas—especially within the De Soto Canyon area.	testing activities. The Navy conducts training and testing activities in the Gulf of Mexico because this region provides valuable access to air and sea space conditions that are analogous to areas where the Navy operates, or may need to operate in the future. This contributes to ensure safety of personnel, skill proficiency, and validation of testing program requirements. For training, areas in this region where exercises are scheduled to occur are chosen to allow for the realistic tactical development of the myriad of training scenarios Navy units are required to complete to be mission effective. Certain activities, such as deployment certification exercises using integrated warfare components, require large areas of the littorals and open ocean for realistic and safe training. Locations for other training activities are chosen due to the proximity of associated training ranges (e.g., Pensacola Operating Area), available airspace (e.g., avoiding airspace conflicts with major airports, such as Key West International Airport), unobstructed sea space (e.g., throughout the New Orleans Operating Area), aircraft emergency landing fields (e.g., Naval Air Station Pensacola), and with consideration of public safety (e.g., avoiding areas popular for recreational boating). Areas where testing events are scheduled to occur are chosen to allow the Navy to test systems and platforms in a variety of bathymetric and environmental conditions to ensure functionality and accuracy in real world environments. Test locations are typically located near the support facilities of the systems commands, which provide critical safety, platforms, infrastructure support and technical expertise necessary to conduct testing (e.g., proximity to air squadrons).
124	<u>Organization:</u> O03-24	Finally, given the known vulnerability of Gulf Bryde's whales to ship strikes and the extreme endangerment of the subspecies, we recommend that the Navy consider establishing a 10-knot speed limit within the De Soto Canyon Mitigation Area and	As discussed in Section 5.3.4.1 (Vessel Movement), the Navy implements mitigation to avoid vessel strikes throughout the Study Area. As described in Section 2.3.3 (Standard Operating Procedures) Navy vessels operate in accordance with the navigation rules established by the U.S. Coast Guard, which

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
124 (cont.)		a measure, analogous to the one proposed for the Southeast North Atlantic Right Whale Mitigation Area (see DEIS at Table 5.4-3), that would minimize transits through the De Soto Canyon Mitigation Area to the maximum extent practicable.	require that vessels proceed at a safe speed so that proper and effective action can be taken to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions. In its assessment of potential mitigation, the Navy considered implementing additional vessel speed restrictions (e.g., expanding the 10-knot restriction to other activities off the northeastern United States). Navy determined that implementing additional vessel speed restrictions beyond what is described in Section 5.3.4.1 (Vessel Movement), would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives. Additionally, as described in Section 5.3.4.1 (Vessel Movement), any additional vessel speed restrictions would prevent vessel operators from gaining skill proficiency, would prevent the Navy from properly testing vessel capabilities, or would increase the time on station during training or testing activities as required to achieve skill proficiency or properly test vessel capabilities (which would significantly increase fuel consumption). Furthermore, there have been no Navy vessel strikes within the Gulf of Mexico to date.
125	<u>Organization:</u> O03-25	The Navy should extend the boundaries of the Mitigation Area wherever necessary to reflect the recommendations of NMFS' Status Review.	In its assessment of potential mitigation, the Navy considered implementing additional restrictions on active sonar and explosives in the Gulf of Mexico, including prohibiting all major training exercises and expanding the boundaries of the mitigation area for De Soto Canyon. The Navy is enlarging the more eastern Gulf of Mexico Planning Awareness Mitigation Area to fully encompass the Bryde's whale small and resident population area and the extended area identified by NMFS in its 2016 Bryde's whale status review. The Navy also developed a new mitigation area known as the Bryde's Whale Mitigation Area, which covers the extent of the Bryde's whale small and resident population area and the extended area identified by NMFS in its 2016 Bryde's whale status review. These mitigation areas will help the Navy

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
125 (cont.)			avoid or reduce potential impacts on the small and resident population of Bryde's whales.
126	<u>Organization:</u> O03-27	<p>The Charleston Bump is a deepwater bottom feature 80 to 100 miles southeast of Charleston, SC. This feature represents essential habitat for wreckfish and represents their only known spawning ground in the western North Atlantic. The Charleston Bump also deflects the flow of the Gulf Stream, creating eddies and other oceanographic features that elevate the primary productivity and support the growth and production of larval fishes for the entire region.</p> <p>The concentrations of juvenile fish attract larger marine fauna, including swordfish, for which the Bump constitutes a persistent nursery area; sea turtles; and a diversity of marine mammals, including pilot whale and false killer whale.</p> <p>The area is also a productive fishing ground. Based on the evidence presented above, we recommend that the Charleston Bump be considered for designation as a year-round time-area management area.</p>	<p>In its assessment of potential mitigation, the Navy considered implementing additional restrictions on active sonar and explosives in the U.S. Mid--Atlantic region, including at the Charleston Bump. Navy operators determined that implementing additional mitigation beyond what is described in Section 5.4.3 (Mitigation Areas off the mid-Atlantic and Southeastern United States) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives. Some of the considerations regarding why it would be impractical to implement additional mitigation in the U.S. mid-Atlantic region are provided below.</p> <p>The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within the identified mitigation areas that is practical to implement under the Proposed Action. Operational input indicates that designating additional mitigation areas (including the Charleston Bump) would have a significant impact on the ability for units to meet their individual training and certification requirements (preventing them from deploying with the required level of readiness necessary to accomplish their missions), on the ability to certify strike groups to deploy to meet national security tasking (limiting the flexibility of Combatant Commanders and warfighters to project power, engage in multi-national operations, and conduct the full range of naval warfighting capability in support of national security interests), on the ability of program managers and weapons system acquisition programs to meet testing requirements and required acquisition milestones; on operational costs (due to extending distance offshore, which would increase fuel consumption, maintenance, and time on station to complete</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
126 (cont.)			required training and testing activities), on the safety risk associated with conducting training and testing at extended distances offshore (farther away from critical medical and search and rescue capabilities), on accelerated fatigue-life of aircraft and ships (leading to increased safety risk and higher maintenance costs), on training and testing realism (due to reduced access to necessary environmental or oceanographic conditions that replicate potential real world areas in which combat may occur), and/or on the ability for Navy Sailors to train and become proficient in using the sensors and weapons systems as would be required in a real world combat situation. Furthermore, the iterative and cumulative impact of all commenter-proposed mitigation areas and seasonal or temporal restrictions would deny national command authorities the flexibility to respond to national security challenges as required training necessary for deployment would entail movements to multiple operational areas along the Eastern seaboard and the Gulf of Mexico to conduct training within set time frames. Likewise, this iterative and cumulative impact would deny weapons system program managers and research, testing, and development program managers the flexibility to rapidly field or develop necessary systems due to the required use of multiple areas within limited timeframes. Additional information regarding the operational importance, significant negative impacts on Navy training and testing operations, and impracticality of implementing the mitigation area proposed by commenter in each geographic region mentioned is provided in the responses to Commenter Reference numbers 109 through 113, 116, 119, and 124 through 126, as well as in Chapter 5 (Mitigation) of the EIS/OEIS.
127	<u>Organization:</u> O03-29	Therefore, in addition to the designation of time-area management areas at the Cul de Sac, the Charleston Bump, and coastal Gulf waters, we strongly recommend that efforts are undertaken in	The Navy has worked collaboratively with NMFS to develop mitigation areas using inputs from the operational community, the best available science discussed in Chapter 3 (Affected Environment and Environmental Consequences), published

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
127 (cont.)		an iterative manner by the Navy and NMFS to identify additional important habitat areas across the AFTT Study Area, using the full range of data and information available to them (e.g., habitat-based density models, NOAA recognized BIAs, survey data, etc.)	literature, predicted activity impact footprints, and marine species monitoring and density data. The Navy completed a Biological Assessment and operational analysis of potential mitigation areas throughout the entire Study Area. The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within the identified mitigation areas that is practical to implement under the Proposed Action. Operational input indicates that designating additional mitigation areas (including areas identified by habitat-based model, NOAA recognized BIAs, or survey data) would have a significant impact on the ability for units to meet their individual training and certification requirements (preventing them from deploying with the required level of readiness necessary to accomplish their missions), on the ability to certify strike groups to deploy to meet national security tasking (limiting the flexibility of Combatant Commanders and warfighters to project power, engage in multi-national operations, and conduct the full range of naval warfighting capability in support of national security interests), on the ability of program managers and weapons system acquisition programs to meet testing requirements and required acquisition milestones; on operational costs (due to extending distance offshore, which would increase fuel consumption, maintenance, and time on station to complete required training and testing activities), on the safety risk associated with conducting training and testing at extended distances offshore (farther away from critical medical and search and rescue capabilities), on accelerated fatigue-life of aircraft and ships (leading to increased safety risk and higher maintenance costs), on training and testing realism (due to reduced access to necessary environmental or oceanographic conditions that replicate potential real world areas in which combat may occur), and/or on the ability for Navy Sailors to train and become proficient in using the sensors and weapons systems as would be required in a real world combat situation.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
127 (cont.)			Furthermore, the iterative and cumulative impact of all commenter-proposed mitigation areas and seasonal or temporal restrictions would deny national command authorities the flexibility to respond to national security challenges as required training necessary for deployment would entail movements to multiple operational areas along the Eastern seaboard and the Gulf of Mexico to conduct training within set time frames. Likewise, this iterative and cumulative impact would deny weapons system program managers and research, testing, and development program managers the flexibility to rapidly field or develop necessary systems due to the required use of multiple areas within limited timeframes. Therefore, implementing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical and would prevent the Navy from meeting its Title 10 requirements to successfully accomplish military readiness objectives. Navy Senior Leadership has approved the mitigation as described in Chapter 5 (Mitigation); therefore, additional permission or authorization from Navy Leadership will not be required prior to conducting training or testing in the Study Area with regard to mitigation implementation. Additional information regarding the operational importance, significant negative impacts on Navy training and testing operations, and impracticality of implementing the mitigation area proposed by commenter in each geographic region mentioned is provided in the responses to Commenter Reference numbers 111, 116 through 118, and 121 through 123, as well as in Chapter 5 (Mitigation) of the EIS/OEIS.
128	<u>Organization:</u> O03-30	The Navy should consider establishing stand-off distances around its Mitigation Areas to the greatest extent practicable, allowing for variability in size given the location of the Area, the type of operation at issue, and the species of concern.	The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within mitigation areas and the maximum size of mitigation areas that are practical to implement under the Proposed Action. Implementing additional mitigation (e.g., stand-off distances that would extend the size of the mitigation areas) beyond what is

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
128 (cont.)			described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements. The Navy's mitigation measures were reviewed and approved by a four-star Admiral, the Fleet Commander of all Navy forces in the Study Area, and Navy Senior Leadership.
129	<u>Organization:</u> O03-34	The Navy should therefore consider requiring thermal detection in optimal conditions, or, alternatively, establishing a pilot program for thermal detection, with annual review under the adaptive management system. According to the DEIS, the Navy "plans to continue researching thermal detection systems to determine their effectiveness and compatibility with Navy applications" (DEIS at 5-84). A pilot program would be consistent with that interest, while allowing for trial use as a monitoring measure. We further recommend that the Navy conduct a limited trial of thermal detection during the EIS preparation period, to determine the potential benefit for marine mammal detectability and to explore how such a system might be integrated into the Navy's present real-time marine mammal monitoring measures.	The Office of Naval Research Marine Mammals and Biology program is currently funding an ongoing project (2013-2018) that is testing the thermal limits of infrared based automatic whale detection technology (Principal Investigators: Olaf Boebel and Daniel Zitterbart). This project is focused on 1) capturing whale spouts at two different locations featuring subtropical and tropical water temperatures; 2) optimizing detector/classifier performance on the collected data; and 3) testing system performance by comparing system detections with concurrent visual observations. In addition, Defense Advanced Research Projects Agency has funded six initial studies to test and evaluate current technologies and algorithms to automatically detect marine mammals (IR thermal detection being one of the technologies) on an unmanned surface vehicle. Based on the outcome of these initial studies, follow-on efforts and testing are planned for 2018-2019. The Navy plans to continue researching thermal detection systems to determine their effectiveness and compatibility with Navy applications. If the technology matures to the state where thermal detection is determined to be an effective mitigation tool during training and testing, the Navy will assess the practicality of using the technology during training and testing events and retrofitting its observation platforms with thermal detection devices.
130	<u>Organization:</u> O03-35	For most other areas important to right whales, however, including the Navy's Gulf of Maine Planning Awareness Area, right whale critical habitat in the southeast, and the right whale migratory corridor, the DEIS does not contain any indication that a	The Navy conducted an operational analysis of potential mitigation areas throughout the entire Study Area to consider a wide range of mitigation options, including but not limited to vessel speed restrictions. As discussed in Section 3.0.3.3.4.1 (Vessels and In-Water Devices), Navy ships transit at speeds that

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
130 (cont.)		<p>practicability analysis was conducted, nor does it prescribe any speed reduction measures. Similar concerns exist for the De Soto Canyon, within the Navy's Gulf of Mexico Mitigation Areas, where the Gulf subspecies of Bryde's whales also require protection from potential vessel collision (see section III.B.1.f.i above). We urge the Navy to conduct a practicability analysis and implement vessel speed reduction in these areas.</p> <p>Additionally, given that the speed of Navy ships during all aspects of their operations potentially impacts marine mammals, we recommend that the Navy collect data on ship speed and report them to NMFS as part of the EIS process. This will allow for objective evaluation by NMFS of ship strike risk, of harassment resulting from vessel activity, and of the potential benefit of additional speed-focused mitigation measures. (Note: comment contained footnotes. See comment letter).</p>	<p>are optimal for fuel conservation or to meet operational requirements. Operational input indicated that implementing additional vessel speed restrictions beyond what is identified in Section 5.4 (Mitigation Areas to be Implemented) would be impractical to implement due to implications for safety and sustainability. In its assessment of potential mitigation, the Navy considered implementing additional vessel speed restrictions e.g., expanding the 10-knot restriction to other activities.) Navy determined that implementing additional vessel speed (restrictions beyond what is described in Section 5.3.4.1 (Vessel Movement), would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its mission requirements to successfully accomplish military readiness objectives. Additionally, as described in Section 5.3.4.1 (Vessel Movement), any additional vessel speed restrictions would prevent vessel operators from gaining skill proficiency, would prevent the Navy from properly testing vessel capabilities, or would increase the time on station during training or testing activities as required to achieve skill proficiency or properly test vessel capabilities (which would significantly increase fuel consumption). As discussed in Section 5.3.4.1 (Vessel Movement), the Navy implements mitigation to avoid vessel strikes throughout the Study Area.</p> <p>Regarding the recommended additional Navy collection of data on ship speed and reporting that data to NMFS, see the discussion in Section 5.5.7 (Reporting Requirements). The Navy developed its reporting requirements in conjunction with NMFS. As directed by the Chief of Naval Operations Instruction (OPNAVINST) 5090.1D, Environmental Readiness Program, Navy vessels report all marine mammal incidents worldwide, to include ship speed. Therefore the data required for the analysis discussed in the comment is already being collected, and any additional data collection required for the sake of collecting data would create an</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
130 (cont.)			unnecessary and impractical administrative burden on ships crews while not providing any additional meaningful data to support the type of analysis mentioned in the comment.
131	<u>Organization:</u> O03-36	To the extent that additional operational mitigation is impractical, the Navy should consider adopting compensatory mitigation to help improve the	<p>As indicated previously, the Navy has for years implemented a very broad and comprehensive range of measures to mitigate potential impacts on marine mammals from military readiness activities. As the EIS/OEIS documents in Chapter 5 (Mitigation), the Navy is increasing its mitigation measures to enhance marine mammal protections to the maximum extent practicable. Aside from direct mitigation, as noted by the comment, the Navy engages in an extensive spectrum of other activities that greatly benefit marine species in a more general manner that is not necessarily tied to just military readiness activities.</p> <p>As noted in section 3.0.1.1 of the EIS/OEIS, the Navy provides extensive investment for research programs in basic and applied research. In fact, the U.S. Navy is one of the largest sources of funding for marine mammal research in the world, which has greatly enhanced the scientific community's understanding of marine species much more generally. The Navy's support and conduct of cutting-edge marine mammal research includes: marine mammal detection, including the development and testing of new autonomous hardware platforms and signal processing algorithms for detection, classification, and localization of marine mammals; improvements in density information and development of abundance models of marine mammals; and advancements in the understanding and characterization of the behavioral, physiological (hearing and stress response), and potentially population-level consequences of sound exposure on marine life. In addition, the Navy is a critical sponsor of the North Atlantic Right Whale EWS and the winter aerial surveys, which has contributed to a marked reduction in vessel strikes of the North Atlantic right whale in the Southeast critical habitat, particularly by commercial vessels which represents the greatest threat to the</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
131 (cont.)		conservation status or habitat of affected populations. The Navy should consider compensatory mitigation for the adverse impacts of the permitted activity on marine mammals and their habitat that cannot be prevented or mitigated.	<p>North Atlantic right whale.</p> <p>Regarding compensatory mitigation, as a matter of law compensatory mitigation is not required or authorized to be imposed upon federal agencies under the ESA. For federal agencies (which are not subject to Section 10 permits where applicants must minimize and mitigate impacts), FWS/NMFS can only require measures that comport with the minor change rule and seek to minimize take, not “mitigate” (in the sense of compensatory mitigation) (see p. 4-19 and 4-50 of Consultation Handbook). Similarly, there is no provision in the MMPA that provides for compensatory mitigation and no NMFS policy that directs compensatory mitigation for any applicant. Additionally, the commenter did not recommend any specific measure(s), rendering it impossible to conduct any meaningful evaluation of their recommendation. The vast majority of Navy takes of marine mammals are relatively minor and temporary behavioral reactions that do not have measurable long-term or permanent impacts to stocks or species. The Navy is unaware of any proven or effective mechanisms for using compensatory mitigation for offsetting temporary behavioral reactions to marine mammals. Many of the methods of compensatory mitigation that have proven successful in terrestrial settings (purchasing or preserving land with important habitat, improving habitat through plantings, etc.) are not applicable in a marine setting with such far-ranging species. Thus, any presumed conservation value from such an idea would be purely speculative at this time.</p>
132	<u>Organization:</u> O03-43	The Navy’s adjustment of injury and mortality numbers for “mitigation effectiveness” is also problematic. The DEIS starts with species-specific g(0) factors applied in professional marine mammal abundance surveys, then multiplies them by a simple factor to reflect the relative effectiveness of its	Information about the quantitative analysis process, including the consideration of mitigation effectiveness, is described in detail in the 2018 technical report titled <i>Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing</i> . The Navy quantitatively assessed the effectiveness of its mitigation

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
132 (cont.)		<p>lookouts in routine operating conditions. Yet the Navy's sighting effectiveness is likely to be much poorer than that of experienced biologists dedicated exclusively to marine mammal detection, operating under conditions that maximize sightings. As one recent paper observed, for example, abundance survey rates declined significantly as sea states rose above Beaufort 1,104 and average Beaufort sea states in the mid- and southeast Atlantic average Beaufort 3-4 throughout the year (see Table 1). Given this, it seems seldom that Navy visual surveys can approximate the sighting effectiveness of a large-vessel abundance survey.</p>	<p>measures on a per-scenario basis for four factors: (1) species sightability, (2) a Lookout's ability to observe the range to PTS (for sonar and other transducers) and range to mortality (for explosives), (3) the portion of time when mitigation could potentially be conducted during periods of reduced daytime visibility (to include inclement weather and high sea state) and the portion of time when mitigation could potentially be conducted at night, and (4) the ability for sound sources to be positively controlled (e.g., powered down). The g(0) values used by the Navy for their mitigation effectiveness adjustments take into account the differences in sightability with sea state, and utilize averaged g(0) values for sea states of 1-4 and weighted as suggested by Barlow (2015). This helps to account for reduced sightability in varying conditions, as does the fact that, during active sonar activities, Navy lookouts tend to look in the water near the vessel, within 1 km, rather than out to the horizon as marine mammal observers do. During training and testing activities, there is typically at least one, if not numerous, support personnel involved in the activity (e.g., range support personnel aboard a torpedo retrieval boat or support aircraft). In addition to the Lookout posted for the purpose of mitigation, these additional personnel observe for and disseminate marine species sighting information amongst the units participating in the activity whenever possible as they conduct their primary mission responsibilities.</p> <p>However, as a conservative approach to assigning mitigation effectiveness factors, the Navy elected to account only for the minimum number of required Lookouts used for each activity; therefore, the mitigation effectiveness factors may underestimate the likelihood that some marine mammals and sea turtles may be detected during activities that are supported by additional personnel who may also be observing the mitigation zone.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
133	<u>Organization:</u> O04-02	We recommend that the Navy become familiar with the locations of scallop beds and avoid activities that might impact the seabed in these areas.	There are no training or testing activities planned using bottom-placed explosive charges in locations where scallop beds are known to occur, such as within the Northeast Range Complexes or the NUWC Newport Testing Range.
134	<u>Organization:</u> O04-03, O04-04	Two comments recommend avoiding sensitive habitats such as seep habitats and deep-sea corals.	The Navy is committed to developing and implementing mitigation to avoid or reduce potential impacts to marine species, cultural resources, and the marine environment to the maximum extent practicable. Chapter 5 (Mitigation) details the mitigation that the Navy will implement under the Proposed Action. As discussed in Section 5.4.1 (Mitigation Areas for Seafloor Resources), the Navy will implement mitigation measures (e.g., avoiding bottom-placed explosives) to avoid or reduce potential impacts to shallow-water coral reefs, live hard bottom, artificial reefs, submerged aquatic vegetation, and shipwrecks. Implementing additional mitigation would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives. Furthermore, there are no training or testing activities planned using bottom-placed explosive charges in locations where deep-sea corals are known to occur.
135	<u>Organization:</u> O04-05	The habitat suitability modeling referenced in the technical report "Building and Maintaining a Comprehensive Database and Prioritization Scheme for Overlapping Habitat Data - Focus on Abiotic Substrate" is useful for estimating the approximate footprint of coral habitats in the canyon, but the spatial domain of the model does not encompass all the seamounts within the Exclusive Economic Zone (EEZ), and the model does not identify high suitability habitats in the Gulf of Maine, likely due to low resolution seabed data underlying the analysis in that part of the region.	As described in Section 5.4.1 (Mitigation Areas for Seafloor Resources), the database of abiotic substrate uses polygon data (areal), with the exception of artificial structures (e.g., shipwrecks, artificial reefs), because polygon data is more applicable to habitat analysis. The abiotic substrate polygons do incorporate the seamounts that are shallow enough to harbor deep-sea corals based on the available scientific literature. The Navy is not aware of any higher quality validated polygon seabed data for the Gulf of Maine. NMFS has been and will continue to be a major source of benthic habitat data used in Navy environmental compliance documentation.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
136	<u>Organization:</u> O04-07	We were pleased to note that recently discovered cold seep habitats are identified as occurring in the affected environment for this action (page 3.4-7). As far as we are aware, these cold seeps occur beyond water depths commercially fished, but we would nonetheless recommend avoiding impacts to known seep habitats to the extent possible, given that they are little studied but may be ecologically important.	The Navy is committed to developing and implementing mitigation to avoid or reduce potential impacts to marine species, cultural resources, and the marine environment to the maximum extent practicable. Chapter 5 (Mitigation) details the mitigation that the Navy will implement under the Proposed Action. As discussed in Section 5.4.1 (Mitigation Areas for Seafloor Resources), the Navy will implement mitigation measures (e.g., avoiding bottom-placed explosives) to avoid or reduce potential impacts to shallow-water coral reefs, live hard bottom, artificial reefs, submerged aquatic vegetation, and shipwrecks. Implementing additional mitigation would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives. Furthermore, there are no training or testing activities planned using bottom-placed explosive charges in locations where cold seep habitats are known to occur.
137	<u>Organization:</u> O05-05	Describe mitigation considered and recommended.	The environmental analysis in Chapter 3 (Affected Environment and Environmental Consequences) identified that certain acoustic, explosive, and physical disturbance and strike stressors have the potential to impact certain biological or cultural resources. The Navy will implement mitigation to avoid or reduce potential impacts on these stressors to the maximum extent practicable, as discussed in Chapter 5 (Mitigation).
138	<u>Organization:</u> O05-06	We ask that you specifically describe the amount of expended materials that will be expended in Narragansett Bay and address mitigation of the materials in the EIS. All materials that have been and will be expended should be addressed including; wires, projectile casings, marine markers, flares, flare parts, and everything else that may have been expended regardless of perceived environmental impact.	All expended materials associated with the Proposed Action are discussed in Chapter 3.0 (see sections 3.0.3.3.4 - 3.0.3.3.6) and in Appendix F (Military Expended Material and Direct Strike Impact Analysis) of the EIS/OEIS. This information includes expended materials in the offshore range complexes, as well as the inshore waters, including Narragansett Bay. The Navy has standard operating procedures in place to reduce the amount of military expended materials (Section 2.3.3.5, Weapons Firing Safety), including recovering targets and associated parachutes

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
138 (cont.)			to the maximum extent practicable. In addition, the Navy has developed mitigation areas (Section 5.4.1, Seafloor Resources) to avoid or reduce potential impacts of certain explosives and physical disturbance and strike stressors (such as military expended materials) on seafloor resources, including shallow-water coral, live hard bottom, artificial reefs, submerged aquatic vegetation, and shipwrecks.
139	<u>Organization:</u> O05-07	Combining activities. All efforts should be made to combine activities, in terms of timing and area, to reduce overall impacts to the use of Narragansett Bay. Activities should also be combined if the combination will not exacerbate environmental impact and will assist in timely mitigation. Additionally, when combining activities, consideration should be given to the timing of potential impacts including, but not limited to, impacts to seasonal seal and other marine mammal populations, bird/fish migration, and impacts on resources and other Bay stakeholders.	Training and testing events are combined to the extent practicable. Testing activities are generally not combined due to various limitations, such as differing testing requirements and incompatible schedules. Training activities are generally not combined with testing activities due to differing mission requirements. The Navy implements mitigation measures to avoid or reduce potential impacts on marine species. All mitigation measures can be found in Chapter 5 (Mitigation) of the EIS/OEIS.
140	<u>Organization:</u> O05-10	Rhode Island law further requires mitigation of all impacts. Section 3.3.2.1.2.6 of the EIS/OEIS states that “marine debris is not a threat to vegetation.” We disagree. Marine debris can settle on SAV, blocking it from light and hindering its ability to survive. We ask that you review training and testing procedures as they relate to sensitive SAV, particularly within the Narragansett Bay Shallow Water Test Facility and again, address the impacts and demonstrate that the Navy has taken all necessary steps to avoid impacts to SAV.	The Navy has reviewed Rhode Island’s Coastal Zone Management Program and determined that three policies are applicable to the Proposed Action; Section 1.2.1: Tidal and Coastal Pond Waters (Types 1-6), Section 1.2.3: Areas of Historic and Archaeological Significance, Section 1160.2 Areas of Particular Concern described in Table 4. All other policies do not apply to the proposed activities. Pursuant to the Coastal Zone Management Act, the Navy has consulted with the State of Rhode Island on the proposed activities. Rhode Island concurred with the Navy’s Coastal Consistency Determination. Section 3.3.2.1.2.6 (Marine Debris) has been updated to reflect the circumstances in which marine vegetation could be impacted by marine debris. Military expended material is unlikely to fall on any seagrass bed. This low probability is based on the very limited footprint associated with

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
140 (cont.)			the military expended materials expended in Narragansett Bay and the tiny portion of Narragansett Bay where military expended materials could potentially overlap with the location of seagrass beds. Seagrass beds are considered hazardous to navigation and are avoided during Navy training and testing activities. In the unlikely event of expended material landing in a seagrass bed, the material footprint suggests a negligible impact on the viability of seagrass beds. The Phase III EFH Assessment examined the impact of small vessel movement, military expended materials, and seafloor devices on seagrass beds and concluded that impacts would be unlikely. The Navy has developed new mitigation measures for submerged aquatic vegetation, which are presented in Section 5.4.1 (Mitigation Areas for Seafloor Resources).
Consultation Response/Concurrence			
141	<u>Federal:</u> F01-01, F02-01, F03-01, F04-09 <u>State:</u> S01-01, S01-03, S08-01, S10-01, S11-01, S11-03, S13-01, S21-01, S21-03, S21-05, S21-06, S25-01, S26-01, S29-01, S29-05, S29-07, S29-09, S29-11, S30-01, S30-02	Twenty-four comments indicated that they concur with the project.	Thank you for your review.
142	<u>State:</u> S03-01, S06-01, S16-01, S27-02, S27-01	Five comments referenced concerns about the Section 106 process and architectural and historical resources of concern in various states located within the Study Area.	Thank you for your review. The Navy consulted with all applicable State Historic Preservation Offices pursuant to Section 106 of the National Historic Preservation Act.
143	<u>State:</u> S05-17	The Georgia Coastal Management Program requests the Navy reconsider our 2013 comments and requests, including expanding the Southeast NARW Mitigation Area to correspond with the revised	After reviewing the entire Georgia Department of Natural Resources comment package, all comments submitted by the Georgia Department of Natural Resources in previous years for the AFTT 2013 Draft EIS/OEIS have been summarized in their

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
143 (cont.)		NARW Critical Habitat which was expanded by NMFS in 2015. Recent research by NMFS shows that the NARW species declined from 2010 to 2015. Since 2015 the species has experienced historically high mortality rates and low calving rates, so the species has likely declined even further. As such, it is essential that the Navy adequately mitigate potential causes of mortality, injury and harassment in the NARW calving habitat.	current letter submittal for the AFTT 2017 Draft EIS/OEIS. By addressing the comments contained within the letters received in 2017, the Navy is also addressing Georgia Department of Natural Resources previous comments from previous years.
144	<u>State:</u> S05-18, S07-01, S07-03, S29-16	Four comments regarding Coastal Zone Consistency determinations.	Thank you for your review. The Navy prepared Coastal Zone Management Act consistency determinations to ensure consistency with the enforceable policies of the applicable Coastal Zone Management Programs. Please see Section 6.1.1 (Coastal Zone Management Act Compliance) of the Final EIS/OEIS for details.
145	<u>State:</u> S16-02	In addition, a listing of Native American tribes who may have an interest in projects within New Jersey has been included with this letter. Please note that the HPO is not a source of information regarding Native American religious sites in New Jersey. The list provided is not comprehensive and does not represent a complete listing of Native American entities that may have an interest in the proposed undertaking. Further research will need to be completed to identify all Native American entities that may have an interest in the proposed project. In addition, a listing of Native American tribes who may have an interest in projects within New Jersey has been included with this letter. Please note that the	Thank you for your review. The Navy consulted with all applicable State Historic Preservation Offices pursuant to Section 106 of the National Historic Preservation Act. In addition, the Navy has been corresponding with several tribes about their concerns.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
145 (cont.)		HPO is not a source of information regarding Native American religious sites in New Jersey. The list provided is not comprehensive and does not represent a complete listing of Native American entities that may have an interest in the proposed undertaking. Further research will need to be completed to identify all Native American entities that may have an interest in the proposed project.	
146	<u>State:</u> S29-02, S29-13, S29-14	Three comments suggest close coordination be conducted with the USFWS, NMFS, Virginia Department of Game and Inland Fishers, and the Virginia Department of Conservation and Recreation concerning protected species in the Study Area.	Thank you for your review. The Navy consulted with the United States Fish and Wildlife Service and the NMFS under the Endangered Species Act and the NMFS under the Marine Mammal Protection Act. The Navy also coordinated with the Virginia Department of Game and Inland Fisheries as part of the Coastal Zone Management Act.
147	<u>State:</u> S29-03, S29-04	Two comments regarding Pollution Discharge Elimination and Water Protection permits.	Thank you for your review. The Proposed Action does not require a Virginia Pollution Discharge Elimination System permit or a Section 401 Water Quality certification.
148	<u>State:</u> S29-06	2(b) Agency Findings. According to the DEQ Air Division, the VACAPES Range Complex in Virginia includes ozone (O ₃) attainment areas, O ₃ maintenance areas, O ₃ nonattainment areas and emission control areas for the contributors to ozone pollution, which are volatile organic compounds (VOCs) and nitrogen oxides (NO _x). 2(c) Recommendation. The Navy should take all reasonable precautions to limit emissions of VOCs and NO, principally by controlling or limiting the burning of fossil fuels.	The Navy is committed to taking all reasonable precautions practical based on mission requirements, particularly those within the state waters that include the rivers of Virginia and the Chesapeake Bay to ensure that training and testing requirements are met with the most efficient use of boats and vessel operations in these areas.
149	<u>Native American:</u> N01-02, N02-02	Two comments requested that the tribe be notified if any archaeological discoveries are uncovered.	Thank you for your review. The Navy will provide notification if new historic or archaeological resources are discovered.

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
<i>Consultation concerns under ESA, MMPA, CZMA, MBTA, NHPA, etc.</i>			
150	Federal: F02-02	Although the Department can consult with the Navy as required by the ESA, it will be important to note that we cannot authorize incidental take of manatees under the MMPA. We also are unaware of any pending request for such authorization as is referenced in the DEIS. These and similar statements should be corrected in the final EIS.	This statement was an error in the Draft EIS/OEIS and has been corrected in the Final EIS/OEIS.
151	Federal: F02-06	Work with NPS to evaluate activities occurring within range that produce noise that may impact wildlife in parks. Although the analysis in the Draft EIS is focused on effects at the population levels of wildlife due to the broad scope of the planning area, the impact and injury to individuals from noise should not be dismissed.	Chapter 6 (Regulatory Considerations) presents information on the national system of marine protected areas located in the Study Area, as well as the training and testing activities that could occur within each area and the marine protected area considerations at the local level. The Navy will avoid or reduce impacts to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented) and mitigation areas (see Section 5.4, Mitigation Areas to be Implemented). The Navy completed a full Biological Assessment and operational analysis of potential mitigation areas throughout the entire Study Area. Developing additional mitigation areas beyond what is described in Section 5.4 (Mitigation Areas to be Implemented) would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.
152	Federal: F02-08, F02-09	Two comments suggested creating or making personnel available to respond to stranding and mortality events and conduct agency coordination should such events in coastal waters.	There has not been any stranding in the AFTT study area associated with Navy training and testing activities (see the 2017 technical report titled <i>Marine Mammal Strandings Associated with U.S. Navy Sonar Activities</i>). As part of the MMPA consultation and in the NMFS Final Rule a stranding plan was developed that details Navy actions in the event of a mass stranding that would be potentially linked to Navy activities. NMFS is the lead agency for stranding response and Navy will continue to support NMFS as required and outlined in the stranding plan.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
153	<u>Organization:</u> O03-02	<p>The Navy and NMFS should include information that is essential to evaluate the compliance of the Navy's proposed activities with the MMPA and ESA. Such information includes, but is not limited to:</p> <ul style="list-style-type: none"> • Species- or stock-specific information supporting findings for each affected marine mammal species or stock, as NMFS may not conclude, under the Marine Mammal Protection Act, that an activity will have only a "negligible impact" on a particular species or stock if it has no information on which to do so, see id. at 1225; • A comparison of levels of incidental mortality to each marine mammal stock's potential biological removal ("PBR") level and an evaluation of potentially non-negligible impacts where incidental mortality exceeds PBR, see id. at 1225-28; Thorough "analysis of ways to mitigate the negative effects of the Navy's activities on affected species and stocks," id. at 1229, including consideration of time/area restrictions or "measures of equivalent effect," id. at 1231; and • The impact on endangered sea turtles of the levels of take for which the Navy seeks ESA authorization, id. at 1234-35. 	<p>The Navy considered and discussed in the EIS/OEIS all of the factors enumerated by the commenter. For analysis of potential effects to marine mammal species or stocks as required by the MMPA, Navy presented this analysis by species, population, and/or stock in sections 3.7.3.1 (Acoustic Stressors) and 3.7.3.2 (Explosive stressors). PBR is discussed in detail in sections 3.7.3.2 (Explosive stressors) and 3.7.3.4 (Physical Disturbance and Strike Stressors). A complete analysis of Navy's mitigation measures is discussed in detail in Chapter 5 (Mitigation). A complete analysis of sea turtles is discussed in detail in section 3.8.3 (Environmental Consequences).</p>
154	<u>State:</u> S05-06	<p>Annual activity reports should be provided that quantify vessel activity, active sonar and ordnance detonation levels from November 15 to April 15 within 1) the USWTR area, 2) NARW critical habitat offshore of a) Georgia and b) northeast Florida, and 3) ocean waters within 30 nmi of the a) Georgia and</p>	<p>Annual activity reports have been, and will continue to be, submitted to NMFS. A large portion of the information is classified for national security, and this information is submitted to NMFS to certify our permit compliance. The unclassified reports are posted on the Navy marine species web site (http://www.navy-marine-species-monitoring.us/), and this</p>

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
154 (cont.)		b) northeast Florida coast.	information was provided to Georgia Department of Natural Resources in 2013.
155	<u>State:</u> S05-12	Make available to GCMP unclassified monitoring and activity reports associated with USWTR.	The activity and monitoring reports have been, and will continue to be presented on the Navy's Marine Species Monitoring web site (http://www.navymarinespeciesmonitoring.us/).
156	<u>State:</u> S05-13	Make available to GCMP copies of the annual North Atlantic right whale calving season and migration message.	The message reiterates the mitigation required during the calving season and is available in the EIS/OEIS Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States).
157	<u>State:</u> S05-14	Should there be an unanticipated ship strike of a North Atlantic right whale associated with USWTR activities, the Navy will open a dialogue with the State of Georgia.	In the event a North Atlantic right whale is killed or significantly injured, the Navy follow the reasonable and prudent measures and terms and conditions within the incidental take statement of the NMFS issued Biological Opinion.
158	<u>State:</u> S05-15	Should a right whale be struck the Navy would consult with NMFS (National Marine Fisheries Service). Should that consultation result in changes to Navy activities so that their effects on any land or water use or natural resource of Georgia's coastal zone are substantially different than the effects anticipated in the Phase II DEIS, the Navy will enter into CZMA consultation with the State of Georgia on the new activities.	If Navy activities change for any reason that result in new reasonably foreseeable effects to coastal resources within the coastal zone, Navy will adhere to requirements under CZMA.
159	<u>State:</u> S05-16	Fully disclose unclassified scientifically-based information from monitoring report.	The activity and monitoring reports have been, and will continue to be presented on the Navy's Marine Species Monitoring web site (http://www.navymarinespeciesmonitoring.us/), as provided to Georgia Department of Natural Resources in 2013.
160	<u>State:</u> S05-47a	Individual NARWs may be exposed to chronic noise and other sub-lethal AFTT impacts for months at a time during a single winter, and in subsequent winters over the course of their lives. Additionally, recent research indicates that the species' health is being negatively impacted by vessel strikes, fishing rope entanglement, and possibly by forage limitations and chronic noise throughout the NARW	The Navy worked collaboratively with NMFS to develop mitigation areas using inputs from the operational community, the best available science discussed in Chapter 3 (Affected Environment and Environmental Consequences), published literature, predicted activity impact footprints, and marine species monitoring and density data. The Navy also consulted with NMFS under the Endangered Species Act and the Marine Mammal Protection Act. The Navy discusses mitigation and monitoring programs in

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
160 (cont.)		range (Rolland et al. 2015, 2016). As such, we encourage the Navy to work with National Marine Fisheries Service, state natural resources agencies and the research community to develop and implement a long-term monitoring program to assess cumulative impacts of AFTT activities on NARWs and their Southeast U.S. habitat.	Chapter 5 (Mitigation).
161	<u>State:</u> S07-02	Most of the proposed activities will take place far from Louisiana's coastal zone, and relatively few effects to the State's coastal resources are anticipated. Among the State's coastal uses and resources for which there may be reasonably foreseeable impacts, are the offshore oil and gas industry, shipping, and commercial and recreational fishing. These uses have a significant presence in the Gulf, and may occur in proximity to Navy operations.	The Navy strives to conduct training and testing activities in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions (Section 3.11). Notices to Mariners allow commercial and recreational fishing and tourism boats to adjust their routes to avoid temporary restricted areas. Given the size of the Study Area, the opportunities for Navy activities to interfere with commercial and recreational ocean users are minimal because the majority of fishing and other tourism activities would occur closer to the shore. Because the proposed activities would not lead to a noticeable change in Navy presence, and because the proposed locations for these activities do not differ much from historical use, it is unlikely that commercial and recreational activities would be noticeably affected by Navy activities requiring area restrictions.
162	<u>State:</u> S17-04	Likewise, the current Unusual Mortality Event (UME) for humpback whale strandings on the east coast, which is swiftly approaching 50 whales to date, should be weighted heavily.	The humpback whale Unusual Mortality Event is discussed in the humpback whale species profile within the Affected Environment section of the AFTT Final EIS/OEIS (see Section 3.7.2.3.1.5 - Species- Specific Threats). All information within the Affected Environment section is taken into account when analyzing the overall impacts of Navy training and testing to a resource.
163	<u>State:</u> S19-09	There is insufficient information in the application to determine if a 401 Water Quality Certification would be required.	Thank you for your review. The Proposed Action does not require a 401 Water Quality Certification because discharges associated with the Proposed Action are regulated under the Uniform National Discharge Standards Program of the Clean Water Act.
164	<u>State:</u> S19-10	North Carolina recognizes hard bottom habitat as one of the six habitat types in the Coastal Habitat	The Navy has incorporated the referenced spatial data sources and an additional source from the North Carolina Natural Heritage

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
164 (cont.)		<p>Protection Plan (CHPP 2016). Extensive hard bottom habitat exists on the continental shelf off North Carolina in both state and federal waters. Artificial hard bottom is also particularly abundant in North Carolina Waters in the form of manmade structures, including artificial reefs, shipwrecks, and jetties. This habitat is home to many of the commercially and recreationally important finfish species in North Carolina, including reef complex species like groupers, flounders, snappers, black sea bass, gray triggerfish, sheepshead, spadefish, and grunts; and transient pelagic species like amberjack, mackerel, cobia, and coastal sharks. Nearshore hard bottom areas in particular serve as secondary nursery areas (Deaton et al. 2010) and a migratory corridor (Lindeman and Snyder 1999; Baron et al. 2004) for estuarine dependent reef species such as black sea bass and gag grouper. Not only does hard bottom provide an ecological benefit, but these areas are also used by commercial and recreational fishermen, providing a socio-economic benefit for North Carolinians.</p> <p>Specific areas are designated as essential fish habitat-habitat area of particular concern (EFH-HAPC) by the South Atlantic Fishery Management Council.</p> <p>These areas are considered particularly complexes do importance of ecological functions provided, and are at risk due to their rarity or sensitivity to human degradation. Disturbance in these areas of concentrated fish use that results in displacement of fish could impact local fish abundance by deterring foraging, refuge and spawning activities in preferred habitat areas.</p>	<p>Program in the Protective Measures Assessment Protocol for planning training/testing events involving bottom-placed explosives. Such activities do not typically occur within the North Carolina coastal zone and will not be planned within 350 yards of mapped live hard bottom areas elsewhere, based on standard operating procedures and modeling of crater and expelled material impacts. The Navy has developed new mitigation measures for submerged aquatic vegetation and HAPC for sandbar sharks, which are presented in Section 5.4.1 (Mitigation Areas for Seafloor Resources) and Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), respectively.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
165	<u>State:</u> S20-01	<p>I wanted to make you aware of several park units that the North Carolina Division of Parks and Recreation operates in the study areas indicated in your scoping document. These include:</p> <ul style="list-style-type: none"> • Run Hill State Natural Area - Located within the Virginia Capes OPAREA • Jockey's Ridge State Park - Located within the Virginia Capes OPAREA • Fort Macon State Park - Located within the Cherry Point OPAREA • Theodore Roosevelt State Natural Area - Located within the Cherry Point OPAREA • Hammocks Beach State Park - Located within the Cherry Point OPAREA • Lea Island State Natural Area - Located within the Cherry Point OPAREA • Masonboro Island State Natural Area - Located within the Charleston OPAREA • Carolina Beach State Park - Located within the Charleston OPAREA • Fort Fisher State Recreation Area - Located within the Charleston OPAREA • Bald Head Island State Natural Area - Located within the Charleston OPAREA <p>If there are any direct impacts to these properties, please coordinate with North Carolina Division of Parks and Recreation. Please let me know if you need additional information.</p>	<p>Thank you for your review. All these locations are either within the Study Area or are directly adjacent to the Study Area. Regarding locations in close proximity, yet not directly adjacent, to the Study Area, noise producing activities that would generally be conducted near coastal National Parks, Historic Sites or Monuments would occur greater than 12 NM from the coast. Aircraft noise would be intermittent due to transits from airfields to the operating areas at-sea. Any activities occurring on the coast, would generally occur on Department of Defense controlled beaches. These operating parameters will prevent or reduce any noise impacts to park resources. The Final EIS/OEIS includes some more information regarding potential impacts of wilderness values, recreational activities and visitor experience from airborne noise to Section 3.11 (Socioeconomics) with regard to park units.</p>
166	<u>State:</u> S29-10	<p>DGIF recommends that the Navy continue to coordinate its activities with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) to ensure protection of fisheries associated with the proposed activities.</p>	<p>Thank you for your review. The Navy consulted with the NMFS and the United States Fish and Wildlife Service.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
167	<u>Individual:</u> MAREU-01, MAREU-02	Two comments recommended consultation with the Marine Mammal Commission.	The Marine Mammal Commission has reviewed the Draft EIS/OEIS and provided comments. The Navy has considered all of the comments submitted from the Marine Mammal Commission. The Marine Mammal Commission letter is located on the project website and the Navy's responses are provided in Appendix H.
168	<u>Individual:</u> KUNJE-01 <u>State:</u> S14-02b	Two comments shared concerns for potential impacts to marine life and sensitive areas and one asked that no permit to be granted.	The Navy is concerned for marine life. The analysis and the science show that there is not a significant impact on marine species. 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, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing for decades in the sea space depicted in the Study Area with no documented proof of injuries to marine mammals.
Concerns about alternatives/expansion of alternatives			
169	<u>Individual:</u> HOPCH-04	The planned area of actions is way too large.	The size of the study area is based on Navy training and testing requirements.
170	<u>Individual:</u> GALEV-03, MCGSA-02	Two comments suggested using simulation and other technology for virtual training to minimize the need for real world training.	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 in 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 Navy currently uses simulation for training and testing whenever possible (e.g., command and control exercises are conducted without operational forces); however, there are significant limitations, and its use cannot replace live training or testing. Section 2.4.3.2 (Simulated Training and Testing Only) discusses the limitations of simulated training.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
171	<u>Individual:</u> SPEJA-03	Sonar technology dates from the 1920s; surely by now newer, more effective technologies are available which may have a relatively insignificant impact on marine life, such as low-powered scalar systems.	Modern sonar technology includes a variety of sonar sensor and processing systems. The Navy utilizes sonar systems and other acoustic sensors in support of a variety of mission requirements. Primary uses include detection of and defense against submarines (anti-submarine warfare) and mines (mine warfare), safe navigation and effective communications, and oceanographic surveys.
172	<u>Individual:</u> xxxJO-02	You tube had a video about the Navy doing training on the east coast, I would like to know if you could move the training to the west coast. The reason being the ocean is full of radiation there and Japan is about to dump more radiation into the Pacific. This would protect the sea life in the Atlantic because the sea life in the Pacific might be dead by the year 2018 and nothing will harm the sea life this way.	Thank you for your participation in the National Environmental Policy Act process. The Navy developed the alternatives considered in this EIS/OEIS after careful assessment by subject matter experts, including military units and commands that utilize the ranges, military range management professionals, and Navy environmental managers and scientists. The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.4 (Action Alternative Development) for more detailed information on the development of alternatives. For information regarding west coast Navy training and testing activities refer to the Hawaii Southern California Training and Testing EIS/OEIS (www.hssteis.com) and the Northwest Training and Testing EIS/OEIS (www.nwtteis.com).
173	<u>Organization:</u> O03-01	Following the court's summary judgment ruling, the Navy and NMFS voluntarily entered into a settlement agreement that imposed time and geographic restrictions on HSTT activities to protect marine areas identified as biologically important to various marine mammal populations. In so doing, the agencies acknowledged the feasibility of adopting time/area restrictions to reduce adverse impacts on marine mammals. In completing its EIS, the Navy must thoroughly analyze a range of alternatives involving varying levels of restrictions in sensitive marine habitat "to permit informed public comment	While the Navy reviewed each additional mitigation measure recommended by the commenter, the Navy also reviewed all of these measures comprehensively. Adopting all of the limitations on training and testing suggested by the commenter would result in the Navy effectively losing access to the significant majority of the required training space necessary to comply with the Navy's statutory requirement to prepare a ready force. While certain time and area restrictions were agreed to in the HSTT settlement, the terms of the settlement do not extend ad infinitum (in fact, the settlement did not consider the measures permanent and speaks to their eventual expiration), and are specific to those regions and litigation. They were not selected based on scientific

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
173 (cont.)		on” not only the agencies’ preferred course of action, but also “any choices or alternatives that might be pursued with less environmental harm.” Lands Council, 395 F.3d at 1027.	<p>analysis, but instead were agreed to as a temporary measure to settle the pending lawsuit. As such, the settlement and its terms were never intended to be a framework for how the Navy models future mitigation. There are many different factors to consider within the AFTT study area relative to mitigation, and the HSTT settlement cannot be used as a template for a one-size-fits-all approach to mitigation. The commenter-proposed mitigation measures would essentially prohibit Navy training and testing using sonar and explosives along the entire East Coast and most of the Gulf of Mexico except in very narrow circumstances. It is unclear how the Navy would be able to train and test without access to the ranges and locations that have been carefully developed over decades. These areas allow for Navy activities to be conducted in a manner compatible with multiple other activities in the marine environment, such as energy exploration, alternative energy development, commercial fishing, recreational activities, and commercial shipping.</p> <p>As noted in Chapter 2, the Navy also requires extensive sea space so that individual training and testing activities can occur at sufficiently safe distances such that these activities do not interfere with one another and so that Navy units can train to communicate and operate in a coordinated fashion over tens or hundreds of square miles, as they will have to do when in an operational theater. The Navy must also train in these areas because it may be called upon to defend the United States from direct maritime threats, and the Navy must therefore be familiar with the very waters where it may engage in combat. Enemy naval forces have historically and consistently operated in U.S. waters, from the conflicts following the U.S.’s independence, the World Wars, and through the Cold War. To this day, foreign naval forces operate in U.S. waters, sometimes clandestinely. To completely ban entire areas from training and testing means the Navy will not be able to train in the very waters where it may need to fight and defend the U.S., thus creating potential sanctuaries where foreign naval forces and submarines in particular, may operate more freely.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
173 (cont.)			<p>The commenter proposes, in the alternative to banning Navy training and testing, that the Navy require approval in nearly every area where the Navy currently trains and tests from the “highest command authority.” It is unclear who the commenter means as the highest command authority for the military is the President. Assuming the commenter is referring to very senior military commanders, such a requirement is unwarranted and impractical. As noted in Chapter 2, the Navy conducts thousands of discrete training and testing activities, many involving sonar and explosives. In most cases, these events are small-scale unit-level training activities or testing events with minimal to no impacts on marine mammals and the environment. To require that each individual event be approved at such an elevated level of command, and for all of the areas proposed by the commenter, would essentially paralyze Navy decision-making as senior commanders would be focused on approving otherwise minor and minimally impactful activities. This would lead to fewer training and testing evolutions and decreased readiness, and increasing the risk to Sailors, platforms, and equipment. For major training events, senior commanders are already part of the planning and approval processes for the event. The Navy’s mitigation measures were reviewed and approved by a four-star Admiral, the Fleet Commander of all Navy forces in the Study Area, and Navy Senior Leadership; therefore, additional permission or authorization from Navy Leadership prior to conducting training or testing in the Study Area would be redundant.</p> <p>While the approval scheme may have been supportable as a short-term settlement measure, it is inappropriate for a long-term approach, is not supported at the scale suggested by the commenter in the AFTT study area, is otherwise not warranted based on the extensive level of mitigation previously approved by NMFS and already approved by senior Navy leadership, and runs counter to one of the foundational concepts of naval command and control at sea – which is the ability and duty for a commanding officer to train and fight their ship. As such, the Navy works</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
173 (cont.)			<p>to institutionalize standardized mitigation procedures to ensure that these measures are implemented efficiently and consistently across the Navy. To accomplish this, the Navy has developed a software tool known as the Protective Measures Assessment Protocol (see Section 5.1.2, Compliance Initiatives) to reduce the administrative burdens of environmental compliance on commanders while ensuring required mitigation is implemented correctly.</p> <p>Nor does the excessive level of mitigation proposed by the commenter appear warranted when compared to the level of environmental impact anticipated from Navy training and testing. The Navy has been training and testing in these areas for decades without causing any discernable degradation of the marine environment or to marine species. Many of the impacts to marine species noted by the commenter, such as the increase in ambient ocean noise, marine mammal injuries, and vessel strikes, are caused primarily by other activities, such as commercial fishing and commercial shipping. In the last 25 years, commercial shipping has increased 400%, and the amount of food we obtain from the sea has increased 10 fold. Yet, during this time, the U.S. Navy has become smaller, and its levels of activities have lessened as a result. The Navy represents an extremely small percentage of overall marine activities, and these other activities represent the overwhelming proportion of impacts on the marine environment, yet the mitigation measures proposed by the commenter would impose some of the most stringent and restrictive of any requirements on any other marine activity, measures that potentially mitigate mostly short-term and minor environmental impacts, and would essentially preclude effective Navy training and testing.</p> <p>Chapter 5 contains a detailed discussion of mitigation that includes limitations on sonar and explosives use, time/area restrictions, planning areas that elevate environmental considerations, and a reporting system. As discussed in Chapter 5 (Mitigation), the mitigation measures represent the maximum level of mitigation that the Navy can</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
173 (cont.)			implement after consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activities. The Navy's mitigation measures were reviewed and approved by a four-star Admiral, the Fleet Commander of all Navy forces in the Study Area, and Navy Senior Leadership.
174	<u>Organization:</u> O03-03	We urge the Navy to provide more information on its preferred alternative, which otherwise, based on the information presented in the DEIS, appears to have been designed on the basis of factors unrelated to avoiding or minimizing adverse impacts. To satisfy NEPA, the Navy should develop a fuller range of reasonable alternatives, such as by considering enhancements to its proposed time-area management measures.	The Navy's alternatives were developed in order to satisfy the Navy's purpose and need related to fulfilling its Title 10 requirements. Consistent with 40 C.F.R. 1502.14, the Navy has included a robust suite of mitigation measures, which will be implemented in both action alternatives (i.e. regardless of which alternative is selected). These mitigation measures, as well as standard operating procedures that Navy routinely employs, are discussed in detail and specifically inform the decision maker and the public how the Navy can avoid or minimize adverse impacts. NEPA identifies the application of mitigation measures, such as those suggested by the comment, to the alternatives "when not already included in the proposed action or alternatives" (40 C.F.R. 1502.14). Details regarding the development of reasonable alternatives are provided in Section 2.4, Action Alternative Development.
Commercial/Socioeconomic concerns			
175	<u>Organization:</u> O01-08, O04-11 <u>State:</u> S29-08 <u>Individual:</u> COEPH-02b, MCGSA-01b	Five comments expressed concern over the impact the proposed activities could have on commercial activities.	Many Navy at-sea training and testing ranges are accessible to the public for recreational and commercial purposes. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades. The Navy strives to conduct training and testing activities in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions (Section 3.11, Socioeconomics). The Navy acknowledges that during specific exercises, its training and testing could briefly limit (usually for a matter of hours) public access to a very limited portion of coastal and ocean areas to ensure public safety. Notices to Mariners allow commercial and recreational fishing and tourism boats to adjust their routes to avoid temporary restricted areas. Socioeconomic Resources (Section 3.11) addresses the availability of access on the ocean and in the air and concludes there would be no

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
175 (cont.)			impacts on commercial and recreational activities when Navy training and testing activities temporarily change access to the ocean or airspace in the Study Area. Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations.
176	<u>State:</u> S24-02	Secondly, it is possible that planned activities could have effects on commercial and recreational fisheries specifically within Essential Fish Habitat/Habitat Areas of Particular Concern (EFH-HAPCs) as designated by South Atlantic Fisheries Management Council (SAFMC), specifically related to the Charleston Bump Complex.	The Navy has worked collaboratively with NMFS to identify and develop mitigation areas using inputs from the operational community, the best available science discussed in Chapter 3 (Affected Environment and Environmental Consequences), published literature, predicted activity impact footprints, and marine species monitoring and density data. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades. The Charleston Bump is located seaward of the nearshore continental shelf, where most of the bottom-placed explosives training or testing would occur. Bottom-placed explosives training or testing will not be planned on or near mapped areas of live hard bottom on the continental shelf, per established mitigation measures and mapping that is kept up-to-date. The Navy completed an Essential Fish Habitat assessment and operational analysis of potential mitigation areas throughout the entire Study Area. The Navy has developed new mitigation measures for submerged aquatic vegetation and HAPC for sandbar sharks, which are presented in Section 5.4.1 (Mitigation Areas for Seafloor Resources) and Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States), respectively. The mitigation identified in Section 5.4 (Mitigation Areas to be Implemented) represents the maximum mitigation within the identified mitigation areas that is practical to implement under the Proposed Action.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
177	<u>Commercial:</u> C01-02, C01-03 <u>Individual:</u> COEPH-03, COEPH-04b, COEPH-05, RAYSU-03b <u>Local/Regional:</u> L03-01 <u>Organization:</u> O01-02b, O04-13 <u>State:</u> S02-03, S14-03, S24-03	Twelve comments expressed concern over potential impacts to recreational and commercial fishing and boating activities.	The Navy strives to conduct training and testing activities in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions (Section 3.11, Socioeconomics). The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades. Notices to Mariners allow commercial and recreational fishing and tourism boats to adjust their routes to avoid temporary restricted areas. Given the size of the Study Area, the opportunities for Navy activities to interfere with commercial and recreational ocean users are minimal because the majority of fishing and other tourism activities would occur closer to the shore. Because the proposed activities would not lead to a noticeable change in Navy presence, and because the proposed locations for these activities do not differ much from historical use, it is unlikely that commercial and recreational activities would be noticeably affected by Navy activities requiring area restrictions.
178	<u>Commercial:</u> C01-04a	<p>However, the Draft EIS states on page ES-12 that “the expected impact of noise on invertebrates is...mostly limited to offshore layers of the water column where only...squid...are prevalent”.</p> <p>There are scientific studies that show significant mortality of squid when exposed to low-frequency noise (see Andre et al “Low-frequency sounds induce acoustic trauma in cephalopods”, Research Communications, 2011). We would request that this be considered when scheduling and locating exercises, as a significant portion of our income may be at stake.</p>	The Navy strives to conduct training and testing activities in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions (Section 3.11, Socioeconomics). Andre et al. is referenced in Section 3.4.3.1.1.1, Injury, of the EIS/OEIS. Andre et al. presents a highly unlikely scenario (e.g. -close proximity/prolonged duration) involving Navy training and testing activities. It is unlikely that cephalopods would be in close proximity to Navy vessels/devices during training and testing activities, and exposure duration would be temporary. The proposed training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades.
179	<u>Commercial:</u> C01-05	The impact will be long term but not minimal if the objects are released in heavily fished areas, so we would request that the Navy avoid fishing	The Navy strives to conduct training and testing in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions (Section 3.11, Socioeconomics). The proposed

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
179 (cont.)		grounds when releasing metal objects, or otherwise provide compensation to fishing businesses for loss of gear. Each of our vessels trawls with a net and associated hardware worth over \$130,000 each.	training and testing activities are generally consistent with training and testing that the Navy has been conducting in the AFTT Study Area for decades. Notices to Mariners allow commercial and recreational fishing and tourism boats to adjust their routes to avoid temporary restricted areas. Given the size of the Study Area, the opportunities for Navy activities to interfere with commercial and recreational ocean users are minimal because the majority of fishing and other tourism activities would occur closer to the shore. Because the proposed activities would not lead to a noticeable change in Navy presence, and because the proposed locations for these activities do not differ much from historical use, it is unlikely that commercial and recreational activities would be noticeably affected by Navy activities requiring area restrictions. Damage to fishing gear from Navy training and testing activities in the Study Area is rare. When damage does occur to commercial fishing gear due to Navy actions (e.g., net entanglement, destructions of buoys), the fishermen (or the owner of the property damaged) can file a claim with the Department of the Navy under the Federal Tort Claims Act under the provisions of 28 U.S. Code Section 2671, et seq. and request reimbursement. Forms for filing a claim under the act can be obtained from any Regional Legal Service Office. Reimbursement requests must be made within 2 years of incurring damage.
180	<u>Organization:</u> O04-12b	With respect to fishing activity, the summary provided in section 3.11.2.4 is a good overview of commercial and recreational fishing in the Atlantic and Gulf regions, but would benefit from additional specifics. It would be helpful to include an assessment of the likely spatial overlap between specific types of fishing activities with the locations where training and testing activities are likely to be concentrated. Fishing activities could be grouped by target species, fishery management plan, or gear type. Such an analysis would not need to be overly	Within the AFTT Study Area, the Northeast and Mid-Atlantic Regional Planning Bodies developed Plans that were certified by the National Ocean Council in December 2016. In those Plans, the Department of Defense committed to using the Plans and Regional Data Portals to inform pertinent environmental programs, initiatives, and planning documents. The Regional Ocean Plans and Data Portals were used as a resource throughout the development of this EIS/OEIS. Additionally, because the proposed activities would not lead to a noticeable change in Navy presence, and because the proposed locations for these activities do not differ much from historical use, it is unlikely that commercial and recreational fishing activities would be noticeably affected by Navy activities requiring area restrictions.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
180 (cont.)		specific to be useful; as both fishing activities and Naval testing and training are somewhat difficult to forecast precisely, this would be challenging in any case. Fishing effort maps are available on regional ocean data portals such as http://www.northeastoceandata.org/ and http://portal.midatlanticocean.org/ .	
Pollutants			
181	<u>Organization:</u> O02-07b	Lastly, we are concerned about the use of live munitions or chemical compounds that may either persist in the environment offshore or be a hazard to fishing vessels using bottom-tending gear. To the extent possible, live munitions should be used further offshore outside the range where most fishing operations are being conducted, and efforts should be made to minimize the release of harmful chemical compounds.	As discussed in Chapter 3.6 (Fishes), effects on sediment or water quality would not result in persistent or large scale effects on the growth, survival, distribution, or population-level impacts of fishes. As a matter of practice, the Navy typically does not conduct certain activities in coastal areas due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). The Navy will avoid or reduce impacts from training and testing throughout the Study Area to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented) and mitigation areas (see Section 5.4, Mitigation Areas to be Implemented). Implementing additional mitigation would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.
182	<u>State:</u> S19-04	Emergency fuel dumping of aircraft over waters.	The analysis presented in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS is limited to the activities and reasonable outcomes of such activities. Accidents or emergencies are not reasonably foreseeable, nor anticipated, as part of the Proposed Action, the impacts of such occurrences is not addressed or analyzed in Chapter 3 (Affected Environment and Environmental Consequences). The Navy has plans and procedures for preventing, reporting, and responding to spills. Generally, worse case scenarios such as ship explosions, collisions, and toxic releases are not analyzed as part of the National Environmental Policy Act process.
183	<u>State:</u> S19-06	Dumping of waste, garbage, spent and defective munitions into waters.	Thank you for your participation in the National Environmental Policy Act process. The dumping of waste, garbage, and spent and defective

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
183 (cont.)			munitions is not part of the Proposed Action. The Navy will comply with all applicable laws and regulations.
184	<u>State:</u> S31-01	Any debris or waste disposal should be at an appropriately authorized disposal facility.	The Navy will comply with all applicable laws and regulations.
185	<u>State:</u> S28-04	The EIS/OEIS should also include response plans in the event of accidental spills of oil or other hazardous materials due to either mechanical or human failure.	The Navy has plans and procedures for preventing, reporting, and responding to spills.
186	<u>Individual:</u> AUBMA-02b, COEPH-02a, DIAJO-03, FRISU-02b, GAGBR-01b, LEPSH-01b, LEPSH-02, <u>Federal:</u> F01-02 <u>Organization:</u> O01-03, O01-07, O01-09, O04-08 <u>State:</u> S19-02, S19-03, S19-05	Fifteen comments expressed concern over pollution from the proposed activities.	The Navy is concerned for the health of coastal communities, fisheries, and ecosystems. Section 3.1 (Sediments and Water Quality) concludes that chemical, physical, and biological changes to sediment or water quality would be measureable but below applicable standards, regulations, and guidelines, and would be within the existing conditions or designated uses. The Navy will comply with all applicable laws and regulations.
Provide data for peer review			
187	<u>Organization:</u> O03-47	Additionally, the risk functions do not incorporate (nor does the Navy apparently consider) a number of relevant studies on wild marine mammals, such as a passive acoustic study on blue whale vocalizations and a tagging study on behavioral responses to dipping sonar, for which received levels are either available or	The new risk functions were developed in 2016, before several recent papers were published or the data were available. As new science is published, the Navy continues to evaluate the information. The criteria have been rigorously vetted within the Navy community, among scientists during expert elicitation, and then reviewed by the public before being applied, it is unreasonable to revise and update the criteria and risk functions every time a new paper is published. These new and

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
187 (cont.)		can be estimated.	future papers provide additional valuable information, and the Navy has already begun to consult them for updates to the criteria in the future, when the next round of updated criteria will be developed. Thus far, no new information has been published or otherwise conveyed that would fundamentally change the assessment of impacts or conclusions of this Final EIS/OEIS. To be included in the behavioral response function, data sets needed to relate known or estimable received levels to observations of individual or group behavior. Melcon et al. (2012) does not relate observations of individual/group behavior to known or estimable received levels [at that individual/group]. In Melcon et al. (2012), received levels at the HARP buoy averaged over many hours are related to probabilities of D-calls, but the received level at the blue whale individuals/group are unknown.
188	<u>Organization:</u> O03-48	For this reason and others, and given the obvious importance of this analysis for future acoustic impact analyses, we ask the Navy to make additional technical information available, including expert elicitation and peer review (if any), so that the public can fully comment.	As stated in EIS/OEIS Section 3.7.3.1.2.1 (Methods for Analyzing Impacts from Sonar and Other Transducers), the derivation of the BRF's is provided in the 2017 technical report titled <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III)</i> . The appendices to this report detail the specific data points used to generate the BRF's. Data points come from published data that is readily available and cited within the technical report.
Ship Strikes			
189	<u>Organization:</u> O03-51	This approach, however, fails to account for the likelihood that ship strikes since 2009 were unintentionally underreported.	The Navy does not underreport ship strikes. The Navy found that use of historical data was more appropriate for the analysis. The strike probability analysis completed in this EIS/OEIS is based upon actual data collected from historical use of vessels and represents a more realistic approach to account for real world variables. NRDC's assertion that Navy ships cannot detect ship strikes is categorically incorrect. In the extremely few instances where Navy ships have struck whales, these ships ranged in size from small to aircraft carrier size. Additionally, Navy ships have multiple lookouts, including on the after part of the ship that can visually detect a hit whale (which has occurred), in the unlikely event the ship does not feel the strike. The commenter otherwise provides no evidence demonstrating Navy vessels are striking whales

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
189 (cont.)			and not reporting these strikes.
190	<u>Organization:</u> O03-52	Additionally, the Navy's analysis does not address the potential for increased strike risk of non-Navy vessels as a consequence of acoustic disturbance. For example, some types of anthropogenic noise have been shown to induce near-surfacing behavior in right whales, increasing the risk of ship strike at relatively moderate levels of exposure. ¹²² An analysis based on reported strikes by Navy vessels does not account for this additional risk. In assessing ship- strike risk, the Navy should include offsets to account for potentially undetected and unreported collisions. (Note: comment contained footnotes. See comment letter).	There is no evidence that Navy training and testing activities increase the risk of non-Navy vessels striking marine mammals. Additionally, the signal referred to in the comment was developed specifically to elicit a response from the right whales. This type of signal is not analogous to any sound source used by Navy.
191	<u>State:</u> S05-41	In Appendix F the probability of vessel strikes with large whales are calculated with a simple Poisson model that uses: 1) the number of observed large whale strikes during 2009-2016 (n 3), and 2) the number of anticipated steaming days in AFTT Phase III compared to 2009- 2016. The results indicate that the probability of striking one or more whales during AFTT Phase III is very low. This approach is only appropriate if the spatiotemporal distribution of whales and vessels is very similar between the two time periods, which may not be the case. For example, the low number of whale strikes from 2009 to 2016 may be due in part because low numbers of NARWs have been sighted in the Southeast U.S. since 2010 (GDNR, unpublished data). If the number of NARWs increases in the next five years (which we hope it will), the risk of	The strike probability analysis completed in this EIS/OEIS is based upon actual data collected from historical use of vessels. Also, the Navy acknowledges the risk that vessels pose to right whales and, therefore, has developed a unique suite of mitigation measures for this species. For years, the Navy has successfully been employing these Navy-specific mitigation measures designed to avoid ship strikes to North Atlantic right whales.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
191 (cont.)		a strike would increase beyond the Navy's estimates. Likewise, if the number of vessels departing Mayport Naval Station in Florida til February (i.e., peak NARW season) is greater in the future than it was in the past, the risk of striking whales would increase accordingly. We recommend that the Navy use a more rigorous approach to model vessel strike risk.	
Cumulative impacts			
192	State: S02-05, S05-47b, S17-03	Three comments expressed concern that the EIS/OEIS does not adequately address the extent of potential cumulative impacts.	The Navy has taken a hard look at the incremental, potential cumulative effects of its actions, against the appropriate resource and regulatory baselines. The Navy used the best available science and a comprehensive review of past, present, and reasonably foreseeable actions to develop its Cumulative Impacts analysis. As required under NEPA, the level and scope of the analysis is commensurate with the potential impacts of the action as reflected in the resource-specific discussions in Chapter 3 (Affected Environment and Environmental consequences). The EIS/OEIS considered its activities alongside those of other activities in the region whose impacts are "truly meaningful" to the analysis. Information on the Navy's two conditions for analysis are provided in section 4.1.1. (Determination of Significance). Further, the U.S. EPA has reviewed the Draft EIS/OEIS and rated the document as LO - lack of objections - which means it has not identified any environmental impact requiring substantive changes to the proposal.
193	State: S02-06	The Navy should consider coordinating efforts with other entities conducting seismic activity in the region to minimize the impacts of overlapping surveys.	The Navy coordinates with other Federal Agencies to the greatest extent practicable. However, for operational security and safety considerations, it is not always possible or preferable to disclose the precise location and timing of given maneuvers and training scenarios.
194	State: S05-02	The extent to which active sonar sound will likely propagate from the USWTR and into the adjacent right whale calving habitat.	Acoustic modeling accounted for the levels that would propagate throughout the Jacksonville range complex, including areas where right whales may be. This information was included in the analysis for North Atlantic right whales.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
195	<u>State:</u> S05-03	Whether active sonar sound emitted from the USWTR will raise ambient noise levels within the adjacent calving habitat.	Active sonar activity is relatively short in duration and is not shown to measurably increase ambient noise levels.
196	<u>State:</u> S05-11	In the event that these thresholds are exceeded, training and testing activities will cease in the USWTR area during November 15 to April 15 pending re-initiation of an ESA Section 7 consultation with NMFS.	The Navy is fully integrated with the NMFS Ocean Acoustics Program. Any modifications resulting from the program were considered during consultations with NMFS and will be considered during the adaptive management process.
197	<u>State:</u> S05-05	Passive acoustic monitoring of the USWTR, NARW calving habitat and intervening ocean waters should be conducted to assess ambient and operational noise levels.	Long-term passive acoustic monitoring has been occurring, and is planned to continue to occur in the JAX OPAREA, and the results of the monitoring are presented on the Navy's Marine Species Monitoring web site (http://www.navymarinespeciesmonitoring.us/).
198	<u>State:</u> S05-09	In the event that a NARW is killed or severely injured in the USWTR area by a vessel strike, active sonar or ordnance detonation, USWTR training and testing activities will cease during November 15 to April 15 pending re-initiation of an ESA Section 7 consultation with NMFS.	In the event a North Atlantic right whale is killed or significantly injured by a Navy vessel, the Navy will follow the terms and conditions of the NMFS issued Biological Opinion.
199	<u>State:</u> S05-45	We request that the Navy quantify the amount and spatial extent of vessel traffic, active sonar and explosives that will be used in the USWTR from November to April annually, and how this compares with the status quo.	Activities on USWTR will occur year-round and are estimated to be evenly distributed throughout the year. The Navy vessel traffic in and out of the listed ports will not change from current levels as activities occurring on the USWTR range already take place in this area, just not currently on an instrumented range.
200	<u>Individual:</u> ARRRI-01, GAGBR-03 <u>State:</u> S17-02	Three comments expressed concern with an undersea warfare training range and its potential impacts to North Atlantic Right Whales and one comment expressed concern over the cumulative impacts from human activities, especially noise, on the marine environment.	The potential cumulative impacts of ocean traffic, climate change, water quality, offshore energy exploration and development, and other activities and stressors are summarized in Table 4.2-1 (Past, Present and Reasonably Foreseeable Actions) and specifically analyzed with regard to potential impacts to marine mammals in Section 4.4.7 (Cumulative Impacts on Marine Mammals).

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
201	<u>State:</u> S17-09b	DEC remains very concerned that, should the extent of training and testing occur without the review of additional mitigation effort and understanding of cumulative impacts from increased human activity in the ocean environment, the subsequent occurrence of the Proposed Action can have more than negligible effects on marine species and habitat, not only in New York waters but adjacent areas as well.	The Navy's analysis of direct and indirect effects is described in Chapter 3.0.3 (Overall Approach to Analysis). Generally for each resource analyzed in Chapter 3 (Affected Environment and Environmental Consequences), the direct impacts from individual stressors are analyzed first, followed by, where applicable, the secondary stressors, and then concludes with a summary of the potential impacts of combined stressors (all direct and indirect). The analysis of cumulative impacts is provided in Chapter 4 (Cumulative Impacts). Further, the U.S. EPA has reviewed the EIS/OEIS and rated the Draft EIS/OEIS as LO - Lack of Objections - which means, it has not identified any environmental impacts requiring substantive changes to the proposal.
202	<u>State:</u> S19-07	Long-term cumulative effects of spent munitions on sediments and water quality of range areas off shore of North Carolina.	Explosives byproducts and the potential for munition constituents and constituent accumulation are discussed in Section 3.2.3.1 (Explosives and Explosive Byproducts). Full discussion of studies pertaining to the Potomac River Test Range at Dahlgren and Virginia Beach, VA, Hawaii and other WWII locations, and Vieques, Puerto Rico are on pages 3.2-42 and 3.2-43. The results of these studies are extrapolated as relevant throughout the project study area, including NC. To our knowledge, no similar studies have been conducted specific to NC locations.
203	<u>State:</u> S24-01a	It is recommended the EIS/OEIS contain as much descriptive information as to potential effects to these resources including cumulative activities that may affect certain species to include increased anthropogenic noise in the ocean associated with all aspects of testing and training within the Northwest Atlantic Ocean Distinct Population Segment (DPS). Within the North Atlantic DPS, U.S. NOAA's National Marine Fisheries Service (NMFS) has designated thirty-six (36) marine areas as critical habitat. Each of these areas consist of multiple or a combination of habitat types, but the most important habitat to consider with regard to testing and training is	The potential for combined impacts on all of the stressors introduced by Navy training and testing activities are evaluated in Section 3.8.4 (Summary of Potential Impacts on Reptiles). Cumulative impacts from the Proposed Action, as well as Federal and non-Federal actions, regarding sea turtles and anthropogenic noise, are discussed in Section 4.4.8 (Reptiles) of the Cumulative Impacts chapter. Potential impacts of anthropogenic noise introduced by Navy training and testing activities are discussed and analyzed in Sections 3.8.3.1 (Acoustics Stressors) and 3.8.3.2 (Explosive Stressors) for sea turtles, including the loggerhead Northwest Atlantic DPS and its designated critical habitat. Only species and their critical habitat (if designated) were given a determination of effect on the potential impacts of the Proposed Action. Foraging habitat is not a designated critical habitat type for the loggerhead Northwest Atlantic DPS (79 FR 39855) so it was not explicitly analyzed for an effect

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
203 (cont.)		restricted migratory corridors in federal waters. NMFS also received special management considerations for foraging habitat in two large areas that contain Sargassum habitat, which presumably is located in the same area as the planned activities.	determination. Sargassum habitat is a designated critical habitat type and this was addressed in the analysis. However, some of the known foraging/developmental habitats for the loggerhead Northwest Atlantic DPS are addressed in Section 3.8.2.2.4 (Loggerhead Turtle (<i>Caretta caretta</i>)) as well as considered in some of the U.S. Navy stressor analysis sections in Section 3.8.3 (Environmental Consequences). The NMFS consultation document, the Biological Assessment, and the Final EIS/OEIS will include a more in depth analysis of the impacts on the loggerhead Northwest Atlantic DPS as well as its designated critical habitat.
204	<u>Organization:</u> O03-54	Nor does the Navy's treatment of cumulative impacts, adding the impacts of other reasonably foreseeable activities to its own projected training and testing, result in an adequate analysis. Unfortunately, in assessing the additive and synergistic impacts of its own activities, the Navy provides only abstract rationalization. Finally, it suggests that NMFS' stock assessment reports, which track Potential Biological Removal, and take authorization and adaptive management processes provide a sufficient safeguard against population-level harm (DEIS at 4-44), yet Potential Biological Removal considers only mortality, not sublethal effects, and, given the difficulty of tracking population trends in long-lived marine wildlife, NMFS biologists have stated that population surveys would usually fail to detect even catastrophic declines in the vast majority of cetaceans. At present, the Navy's analysis is arbitrary and does not meet NEPA's requirement to assess the overall impact of the accumulation of individual impacts. (Note: comment contained footnotes. See comment	The commenters' assertion regarding the analysis is incorrect. The Navy, in cooperation with NMFS, has taken a hard look at the cumulative effects of the incremental impact of its proposed actions when added to other past present and future actions, against the appropriate resources and regulatory baselines. The Navy used the best available science and a comprehensive review of past, present, and reasonably foreseeable actions to develop its Cumulative Impacts analysis. As required under NEPA, the level and scope of the analysis is commensurate with the potential impacts of the action as reflected in the resource-specific EIS, discussions in Chapter 3 (Affected Environment and Environmental consequences). The EIS/OEIS considered its activities alongside other actions in the region when those impacts are cumulatively significant. Past and present actions are also included in the analytical process as part of the affected environment baseline conditions presented in Chapter 3. The Navy has done so in accordance with the Council on Environmental Quality 1997 guidance. Per the guidance, a qualitative approach and best professional judgment are appropriate where precise measurements are not available. Where precise measurements and/or methodologies were available they were used. Guidance from the Council on Environmental Quality states it "is not practical to analyze cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful." Further, the U.S. EPA has reviewed the Draft EIS/OEIS and rated the

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
204 (cont.)		letter).	<p>document as LO - lack of objections - which means it has not identified any environmental impact requiring substantive changes to the proposal. Information on the Navy's analysis is provided in section 4.1.1. (Determination of Significance). Lastly, all of the potential effects on marine mammals from Navy training and testing were analyzed in Chapter 3.7 (Affected Environment and Environmental Consequences - Marine mammals). Based on the best available science, it was determined that population-level impacts would not occur. The commenter otherwise has provided no evidence that demonstrates stock or population-level consequences resulting from Navy training and testing activities have occurred, activities that have occurred in these areas at similar levels of intensity, for more than 70 years.</p> <p>The commenters' characterization of the Hildebrand 2006 citation is incorrect. In this paper, the author clearly states that the comparison of potential sound energy does not consider other important factors such as the distribution of the sound sources in space and time. Therefore, the findings in the paper do not represent how Navy activities are conducted, or represent how sound from those activities realistically interacts in the natural environment. As clearly stated throughout the AFTT Final EIS/OEIS, the Navy's activities are typically of short duration (minutes to hours) and widely dispersed throughout the study area in space and time. The commenters' characterization of the New et al 2013 paper is also incorrect. New presents a modeling approach that considers many factors, sound being one, to establish a process that could be used to investigate potential effects to beaked whales when data for the biological factors required by the model becomes available. New 2013 is thoroughly discussed throughout Section 3.7.3 (Environmental Consequences). Lastly, the authors note the need for more data on prey species and reproductive parameters including gestation and lactation duration, as the model results are particularly affected by these assumptions.</p> <p>Through the consultation and permitting processes with the NMFS,</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
204 (cont.)			which also considered the Stock Assessment Reports and ensure any potential effect does not exceed PBR, it was determined that the Navy's Proposed Action would not have measurable, long-term effects on marine mammals. PBR is one tool NMFS uses to ensure population-level harm does not occur. The Navy's monitoring program has also demonstrated no evidence of population-level harm to marine mammals in the AFTT Study Area.
205	<u>Organization:</u> O04-10	However, we note that the affected environment of the study area could change with respect to oil and gas leasing and development over the next few years, depending on the outcome of BOEM's 5-year oil and gas planning process that will replace the 2017-2022 plan currently in effect. In addition, the Navy is likely aware, and the EIS should probably reflect, that specific offshore windfarms are actively moving forward with site assessment activities and drafting construction and operations plans. Given these specific activities, the reference to the Smart from the Start wind energy development plans in the EIS seems overly general.	The April 2017 Executive Order Implementing an America-First Offshore Energy Strategy and May 2017 Department of the Interior Secretary Order 3350 Implementing the America-First Offshore Energy Strategy are discussed in Table 4.2-1 (Past, Present, and Reasonably Foreseeable Actions) including the ensuing development of a new BOEM 5-Year Outer Continental Shelf Oil and Gas Leasing Program that considers additional exploration, leasing, and development in the Atlantic Ocean and Gulf of Mexico. The development of wind energy resources is discussed in Section 3.11.2.1.2 (Wind) and summarized in Table 4.2-1 (Past, Present, and Reasonably Foreseeable Actions). Section 3.11.2.1.2 (Wind) will be updated to reflect the current state of wind energy development projects in the United States. In Section 4.2 (Projects and Other Activities Analyzed for Cumulative Impact) state and Federal wind projects are discussed, but the specific extent of proposed developments are not fully detailed. The Draft EIS/OEIS analysis focused on the potential impacts of windfarms in general and whether those impacts would overlap the Proposed Action impacts on the same species. As with oil and gas leasing activities, it was not previously possible to describe with enduring accuracy the location of all proposed operations due to the uncertain and changing nature of the details for individual windfarm projects and the lack of consistency in the information offered between states. Details regarding specific windfarm developments, as available and pertinent to the analysis, have been included in the Final EIS/OEIS.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
206	<u>Organization:</u> O05-01	However, Save The Bay submits that the Draft Environmental Impact Statement (EIS/OEIS) does not adequately inform the public of the direct, secondary or cumulative environmental impacts from the training activities.	The Navy's analysis of direct and indirect effects is described in Chapter 3.0.3 (Overall Approach to Analysis). Generally for each resource analyzed in Chapter 3 (Affected Environment and Environmental Consequences), the direct impacts from individual stressors are analyzed first, followed by, where applicable, the secondary stressors, and then concludes with a summary of the potential impacts of combined stressors (all direct and indirect). The analysis of cumulative impacts is provided in Chapter 4 (Cumulative Impacts). Further, the U.S. EPA has reviewed the Draft EIS/OEIS and rated it as LO - Lack of Objections - which means, it has not identified any environmental impacts requiring substantive changes to the proposal.
207	<u>Organization:</u> O05-08	We ask that you amend the EIS/OEIS to address all plastic debris as potential microplastics, and examine likely direct, indirect and cumulative impacts accordingly.	<p>The small number of blank fire casings and marine markers expended in Narragansett Bay have very little if any plastic components. Plastics are discussed in Section 3.2.2.2.6 (Marine Debris and Water Quality) and impacts of the Proposed Action associated with the potential to contribute other materials to the ocean environment is analyzed in Section 3.2.3.4 (Other Materials). The cumulative impacts analysis provided in Section 4.4.2 (Sediments and Water Quality) states that:</p> <p>Other military expended materials, such as marine markers and flares, chaff, unrecovered towed and stationary targets, sonobuoys, fiber-optic cables, and miscellaneous plastic and rubber components of other expended objects are expected to sink to the seafloor and become buried in sediments. Depending on the environmental conditions, including the availability of oxygen in sediments and water temperature at the seafloor and the type of material (e.g., metal or plastic), expended material may degrade relatively quickly or persist in the environment indefinitely. Plastic and other persistent materials could incrementally contribute to marine "garbage patches" or other areas with accumulated debris but still have only minimal impact compared to other sources of debris.</p>

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
Improving communication with public			
208	<u>Local / Regional:</u> L04-02, L04-03 <u>State:</u> S25-04	Three comments expressed concern over the potential impact the proposed activities may have on commercial and recreational access to ocean space and air space within the study area.	The Navy understands the importance of communication in order to protect public health and safety, and therefore includes communication as part of Standard Operating Procedures (Section 3.12, Public Health and Safety). These procedures include ensuring that training areas are clear before commencing hazardous activities, conducting all activities in accordance with established safety instructions, conducting underwater detonations only at established and approved locations, posting Navy lookouts at all times during an exercise to ensure non-participants do not enter the area, and, where appropriate, coordinating with the U.S. Coast Guard to issue Notices to Mariners and the Federal Aviation Administration (FAA) to issue Notice to Airmen notifying the public about durations and locations of hazardous activities.
Use of Live Munitions			
209	<u>Organization:</u> O01-10b	I get that practice is important in any field, and I certainly don't want the military going and doing its practice off the coast of some third world country, but question the use of live ammunition. That stuff is super expensive. The waste is unacceptable.	Thank you for your participation in the National Environmental Policy Act process. Your comment is part of the official project record.
210	<u>Organization:</u> O02-07a	Lastly, we are concerned about the use of live munitions or chemical compounds that may either persist in the environment offshore or be a hazard to fishing vessels using bottom-tending gear. To the extent possible, live munitions should be used further offshore outside the range where most fishing operations are being conducted, and efforts should be made to minimize the release of harmful chemical compounds.	As discussed in Chapter 3.6 (Fishes), effects on sediment or water quality would not result in persistent or large scale effects on the growth, survival, distribution, or population-level impacts of fishes. As a matter of practice, the Navy typically does not conduct certain activities in coastal areas due to specific mission requirements (see Section 2.3.3.16, Coastal Zone). The Navy will avoid or reduce impacts from training and testing throughout the Study Area to the maximum extent practicable through procedural mitigation (see Section 5.3, Procedural Mitigation to be Implemented) and mitigation areas (see Section 5.4, Mitigation Areas to be Implemented). Implementing additional mitigation would be impractical due to implications for safety, sustainability, and the Navy's ability to continue meeting its Title 10 requirements to successfully accomplish military readiness objectives.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
211	<u>Individual:</u> AUBMA-02a, COEPH-07, GAGBR-01c, HOPCH-03, NAPSA-01, SNOBA-02, VENPA-02, xxxJO-01 <u>Organization:</u> O01-11a <u>Commercial:</u> C01-07	Ten comments expressed concern over the use of live munitions.	The Navy is concerned for the safety and health of coastal communities, fisheries, and ecosystems. Our analysis of the best available science indicate that the proposed activities, including the use of live munitions, do not represent threat to nearby human communities (Section 3.11, Socioeconomics and Section 3.12, Public Health and Safety), or the ecosystems (Section 3.1, Air quality; Section 3.3, Vegetation; Section 3.5, Habitats) where these testing and training events will take place. Naval forces must be ready for a variety of military operations-from large scale conflict to maritime security to humanitarian assistance/disaster relief-to address the dynamic, social, political, economic, and environmental issues that occur in today's rapidly evolving world. 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 in technologically advanced simulators, cannot duplicate the complexity faced by Sailors and Marines in the real world.
Public Safety			
212	<u>Commercial:</u> C01-06 <u>Organization:</u> O04-14	Two comments expressed concern with the retrieval of munitions and the potential for loss of human life resulting from unexploded munitions and the damage to fishing gear from entanglement with expended materials.	The Navy is concerned for public safety (Section 3.12). Section 3.12.3.3 (Physical Interactions) discusses the potential for commercial and recreational fishing activities to encounter military expended materials that could entangle fishing gear and pose a safety risk. The footprint of military expended materials in the Study Area is discussed in Habitats, Section 3.5.3.4.3 (Impacts from Military Expended Materials). Section 3.2 (Sediments and Water Quality) discusses the low failure rate of munitions, which indicates that most munitions operate as intended. If unexploded ordnance are recovered by fishing vessels, Navy Explosive Ordnance Disposal teams would respond and safely dispose of any hazardous munitions.
Request for Additional Research			
213	<u>State:</u> S05-04	As we have requested previously, we recommend that the Navy conduct a study to validate the Acoustic Effects Model in-situ in Southeast U.S. littoral waters.	The acoustic propagation models have been validated and approved by the Oceanographic and Atmospheric Master Library. These models are the same used for Navy's tactical decision aids.

Table H.3-1. Comment Response Matrix (continued)

Reference Number	Commenters	Comment	Response
214	<u>State:</u> S05-39	We request that the Navy commission a report summarizing research that has been conducted on NARW distribution, findings to date and questions that remain.	As described in Chapter 5 (Mitigation) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS, the Navy evaluated a larger mitigation area to address North Atlantic right whale calving habitat concerns; however, an expanded mitigation area is not being recommended due to the unacceptable impacts it would have with regard to personnel safety, practicality of implementation, and impact on effectiveness of the military readiness activities that occur in that area, see section 5.4.3.2 (Mitigation Area Assessment). Section 5.4.3 (Mitigation Areas off the Mid-Atlantic and Southeastern United States) describes the mitigation measures.
215	<u>Local / Regional:</u> L05-02a	As a municipality located on a barrier island, we must be a good steward of our fragile and pristine environment. Whether it is monitoring Nags Head's water quality or protecting the turtles that nest on our beautiful beach, we take great pride in doing everything we can to ensure that future generations will also be able to experience the magnificence of the Outer Banks. As such, we must request that more research be conducted to fully understand the impacts of sonar and explosives on marine life and how those impacts can be mitigated.	The Navy has for years implemented a very broad and comprehensive range of measures to mitigate potential impacts on marine mammals from military readiness activities. As the Final EIS/OEIS documents in Chapter 5 (Mitigation), the Navy is increasing its mitigation measures to enhance protections of marine mammals to the maximum extent practicable. Aside from direct mitigation, as noted by the comment, the Navy engages in an extensive spectrum of other activities that greatly benefit marine species in a more general manner that is not necessarily tied to just military readiness activities. As noted in Section 3.0.1.1 of the EIS/OEIS, the Navy provides extensive investment for research programs in basic and applied research. In fact, the U.S. Navy is one of the largest sources of funding for marine mammal research in the world, which has greatly enhanced the scientific community's understanding of marine species generally. The Navy's support and conduct of cutting-edge marine mammal research includes: marine mammal detection, including the development and testing of new autonomous hardware platforms and signal processing algorithms for detection, classification, and localization of marine mammals; improvements in density information and development of abundance models of marine mammals; and advancements in the understanding and characterization of the behavioral, physiological (hearing and stress response), and potentially population-level consequences of sound

Table H.3-1. Comment Response Matrix (continued)

<i>Reference Number</i>	<i>Commenters</i>	<i>Comment</i>	<i>Response</i>
215 (cont.)			exposure on marine life. In addition, the Navy is a critical sponsor of the North Atlantic Right Whale EWS and the winter aerial surveys, which has contributed to a marked reduction in vessel strikes of the North Atlantic right whale in the Southeast critical habitat, particularly by commercial vessels which represents the greatest threat to the North Atlantic right whale.

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