

APPENDIX O

GEOGRAPHIC INFORMATION SYSTEM DATA SOURCES

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Final

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

TABLE OF CONTENTS

O GEOGRAPHIC INFORMATION SYSTEM DATA SOURCESO-1

List of Figures

This appendix does not contain figures.

List of Tables

Table O-1: Data Sources by Feature/Layer O-1

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O GEOGRAPHIC INFORMATION SYSTEM DATA SOURCES

Table O-1: Data Sources by Feature/Layer

<i>Feature/Layer</i>	<i>Applicable Figures</i>	<i>Data Source References</i>
Commercial Shipbuilding Facility	Multiple Figures (Global)	Government Furnished Information Department of the Navy (2024)
Bays, Inshore Waters, and Civilian Ports	Multiple Figures (Global)	Government Furnished Information Department of the Navy (2024)
Navy and Select Coast Guard Port or Pierside Locations	Multiple Figures (Global)	Government Furnished Information Department of the Navy (2024)
Military Training/Range/Operation Areas	Multiple Figures (Global)	Government Furnished Information Department of the Navy (2024)
Special Use Airspace	Multiple Figures (Global)	NGA Digital Aeronautical Flight Information File (DAFIF) (2010) Government Furnished Information Department of the Navy (2024)
Ship Shock Area	Multiple Figures (Global)	Military Training Locations – Commander, U.S. Fleet Forces – U.S. Navy, Common Operating Picture (COP) Atlantic formerly known as GOMEX. Updated 10/2022. SDSFIE Version 2.6
SINKEX Box	Multiple Figures (Global)	Military Training Locations – Commander, U.S. Fleet Forces – U.S. Navy, Common Operating Picture (COP) Atlantic formerly known as GOMEX. Updated 10/2022. SDSFIE Version 2.6
AFTT Study Area	Multiple Figures (Global)	Military Training Locations – Commander, U.S. Fleet Forces – U.S. Navy, Common Operating Picture (COP) Atlantic formerly known as GOMEX. Updated 10/2022. SDSFIE Version 2.6
Amphibious Vessel Testing	Multiple Figures (Global)	Government Furnished Information. Provided to Leidos by Jocelyn Pelser Borcuk, NUWC Newport via email on December 5, 2023. Department of the Navy (2024)
Ocean Depth	Multiple Figures (Global)	Amante, C. and B.W. Eakins, 2009. ETOPO1 1 Arc-Minute Global Relief Model: Procedures, Data Sources and Analysis. NOAA Technical Memorandum NESDIS NGDC-24. National Geophysical Data Center, NOAA. doi:10.7289/V5C8276M [2017] https://www.ngdc.noaa.gov/docucomp/page?xml=NOAA/NESDIS/NGDC/MGG/DEM/iso/xml/316.xml&view=getDataView&header=none
3 NM/9 NM State/Federal Boundary	2.1-6	Government Furnished Information Department of the Navy (2024)
Coast Guard Station	2.1-7	Commander, U.S. Fleet Forces – U.S. Navy, Common Operating Picture (COP) Atlantic formerly known as GOMEX. Updated 10/2022. SDSFIE Version 2.6
Coast Guard Cutter Station	2.1-7	Units by OPFAC LANT CUTTERS lat long.xlsx. Provided to Leidos on 11/28/2023

Notes: AFTT = Atlantic Fleet Training and Testing; BIA = Biologically Important Areas; CO = carbon monoxide; COP = Common Operating Procedure; DAFIF = Digital Aeronautical Flight Information File; EPA = Environmental Protection Agency; GIS = Geographic Information System; NESDIS = National Environmental Satellite, Data, and Information Service; NGA = National Geospatial Intelligence Agency; NM = nautical mile; NMFS = National Marine Fisheries Service; NOAA = National Oceanic and Atmospheric Administration; OPFAC LANT = Operational Facility Atlantic; Pb = lead; PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter; PM₁₀ = particulate matter less than or equal to 10 microns in diameter; POC = Point of Contact; SFDIE = Spatial Data Standards for Facilities, Infrastructure, and Environment; SO₂ = sulfur dioxide; U.S. = United States; VA = Virginia

Table O-1: Data Sources by Feature/Layer (continued)

<i>Feature/Layer</i>	<i>Applicable Figures</i>	<i>Data Source References</i>
Section 3.1	3.1-1, 3.1-2, 3.1-3, 3.1-4	See Ozone, CO, Pb, PM _{2.5} , and PM ₁₀ Nonattainment/Maintenance Areas
Ozone, CO, Pb, PM _{2.5} , and PM ₁₀ Nonattainment/Maintenance Areas	3.1-2 - 3.1-5	U.S. Environmental Protection Agency: CO Maintenance Area (1971 Standard) - 12/04/2013 Pb (2008 Standard) – 2017 - 02/07/2017 PM _{2.5} (2012 Standard) - 3/21/2016 PM _{2.5} (2006 Standard) - 9/15/2011 PM _{2.5} (1997 Standard) - 8/23/2011 PM ₁₀ (1987 Standard) - 12/5/2013 8-Hour Ozone (1997 Standard) – 9/8/2015 8-Hour Ozone (2008 Standard) – 6/13/2012 8-Hour Ozone (2015 Standard) – 2/1/2022 SO ₂ (2010 Standard) – 6/30/2021 https://www.epa.gov/green-book/green-book-gis-download
Section 3.2	3.2-2, 3.2-3, 3.2-4	EPA National Aquatic Resource Surveys https://www.epa.gov/national-aquatic-resource-surveys/data-national-aquatic-resource-surveys 2010
Section 3.2	3.2-6, 3.2-7, 3.2-8	EPA National Aquatic Resource Surveys https://www.epa.gov/national-aquatic-resource-surveys/data-national-aquatic-resource-surveys 2010
Section 3.3	3.3-1, 3.3-2, 3.3-3, 3.3-4, 3.3-5, 3.3-6, 3.3-7, 3.3-8, 3.3-9, 3.3-10	U.S. Department of the Navy. (2024). Phase IV Atlantic Fleet Training and Testing: Marine Habitat Database Technical Report. Naval Facilities Engineering Systems Command Atlantic, Norfolk, VA. 66 pages
Section 3.5	3.5-1	NMFS Office of Protected Resources, 2024: Mountainous Star Coral, Boulder Star Coral, Lobed Star Coral, Pillar Star Coral, and Rough Cactus Coral https://www.fisheries.noaa.gov/inport/item/65261 and https://www.fisheries.noaa.gov/inport/item/65253 and https://www.fisheries.noaa.gov/inport/item/65259 and https://www.fisheries.noaa.gov/inport/item/65263 and https://www.fisheries.noaa.gov/inport/item/65265
		NMFS Office of Protected Resources, 2024: Elkhorn and Staghorn Coral https://www.fisheries.noaa.gov/inport/item/65405 and https://www.fisheries.noaa.gov/inport/item/65407
Critical Habitat (areas) – Atlantic Salmon	3.6-1	NOAA (2009). Designation of Critical Habitat for Atlantic Salmon (<i>Salmo salar</i>). 74 <i>Federal Register</i> 29300. https://www.fisheries.noaa.gov/resource/map/atlantic-salmon-gulf-maine-dps-critical-habitat-map-and-gis-data
Critical Habitat – Atlantic Sturgeon	3.6-2, 3.6-3	NOAA NMFS: http://sero.nmfs.noaa.gov/maps_gis_data/protected_resources/critical_habitat/geodata/proposed_atlantic_sturgeon_critical_habitat_In.htm 2016

Table O-1: Data Sources by Feature/Layer (continued)

<i>Feature/Layer</i>	<i>Applicable Figures</i>	<i>Data Source References</i>
Critical Habitat – Gulf Sturgeon	3.6-4	NOAA (2022). Final Critical Habitat for the Gulf Sturgeon (<i>Acipenser oxyrinchus desotoi</i>). 68 <i>Federal Register</i> 13370. 2003. https://www.fisheries.noaa.gov/resource/map/gulf-sturgeon-critical-habitat-map-and-gis-data
Critical Habitat – Smalltooth Sawfish	3.6-5	NOAA (2009). Final Critical Habitat for the U.S. distinct population segment (DPS) of Smalltooth Sawfish (<i>Pristis pectinata</i>). 74 <i>Federal Register</i> 45353. https://www.fisheries.noaa.gov/resource/map/smalltooth-sawfish-critical-habitat-map-and-gis-data
Critical Habitat – Nassau Grouper	3.6-6	NOAA (2022). Critical Habitat for the Nassau Grouper (<i>Epinephelus striatus</i>). 87 <i>Federal Register</i> 62930. https://noaa.hub.arcgis.com/datasets/8dfb377e2a1649dbac19a4fad0d6dbda_260/about
Mitigation Areas	3.6-7, 3.6-8	Government Furnished Information Department of the Navy (2024)
Section 3.7	3.7-1	NMFS Office of Protected Resources, 2024: North Atlantic Right Whale, https://www.fisheries.noaa.gov/inport/item/65383
	3.7-2	U.S. Fish and Wildlife Service. 2005. Final Critical Habitat for the West Indian manatee (<i>Trichechus manatus</i>) [Vector digital data]. <i>Federal Register</i> (41 <i>Federal Register</i> 41914), September 24, 1976 http://criticalhabitat.fws.gov/docs/crithab/zip/fch_41fr41914_trma_2009.zip
	3.7-3	NMFS Office of Protected Resources, 2024: Proposed_RicesWhale_20230724, https://www.fisheries.noaa.gov/inport/item/70324
Section 3.7	3.7-3, 5.4-4, 5.4-5	NOAA Fisheries Greater Atlantic Regional Fisheries Office, 2016 http://www.nmfs.noaa.gov/pr/species/criticalhabitat.htm
Green Turtle Designated Critical Habitat	3.8-1, 3.8-3	National Oceanic and Atmospheric Administration Fisheries, 2024 https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat
Green Turtle Proposed Critical Habitat	3.8-1, 3.8-2, 3.8-3, 3.8-4, 3.8-12, 3.8-13	National Oceanic and Atmospheric Administration Fisheries, 2023 https://noaa.maps.arcgis.com/home/item.html?id=475809f0b637409b8027502fd05dbeb6
Section 3.8	3.8-4, 3.8-5	National Oceanic and Atmospheric Administration National Marine Fisheries Service, 1998
Hawksbill Turtle Designated Critical Habitat	3.8-5	National Oceanic and Atmospheric Administration Fisheries, 2024 https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat
Leatherback Turtle Designated Critical Habitat	3.8-6	National Oceanic and Atmospheric Administration Fisheries, 2024 https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat

Table O-1: Data Sources by Feature/Layer (continued)

<i>Feature/Layer</i>	<i>Applicable Figures</i>	<i>Data Source References</i>
Section 3.8	3.8-6, 3.8-7, 3.8-8	NOAA Fisheries: http://www.nmfs.noaa.gov/pr/species/turtles/criticalhabitat_loggerhead.htm 2014
Loggerhead Turtle Designated Critical Habitat	3.8-7, 3.8-8, 3.8-9, 3.8-10, 3.8-14, 3.8-15, 3.8-16	National Oceanic and Atmospheric Administration Fisheries, 2024 https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat
Section 3.8	3.8-9	National Oceanic and Atmospheric Administration National Marine Fisheries Service, 1979
Section 3.8	3.8-10	U.S. Fish and Wildlife Service, 2003 https://www.fws.gov/verobeach/GIS.html
American Crocodile Designated Critical Habitat	3.8-11	U.S. Fish and Wildlife Service, 2024 https://ecos.fws.gov/ecp/report/table/critical-habitat.html
Section 3.9	3.9-1, 3.9-2, 3.9-3	U.S. Fish and Wildlife Service, 2009 https://www.fws.gov/verobeach/GIS.html
Piping Plover Designated Critical Habitat	3.9-1, 3.9-2, 3.9-3, 3.9-4, 3.9-9, 3.9-10	U.S. Fish and Wildlife Service, 2024 https://ecos.fws.gov/ecp/report/table/critical-habitat.html
Red Knot Proposed Critical Habitat	3.9-5, 3.9-6, 3.9-7, 3.9-8, 3.9-11, 3.9-12	U.S. Fish and Wildlife Service, 2024 https://ecos.fws.gov/ecp/report/table/critical-habitat.html
National Marine Sanctuaries	6.1-1, 6.1-2	NOAA Marine Protected Areas Inventory, 2023 https://marineprotectedareas.noaa.gov/dataanalysis/mpainventory/
Chapter 5	5.7-1, 5.7-2, 5.7-3, 5.7-4, 5.7-5, 5.7-6	Department of the Navy Navy POC: Ben Bartley Version: 2024 U.S. Department of the Navy. (2024). Phase IV Atlantic Fleet Training and Testing: Marine Habitat Database Technical Report. Naval Facilities Engineering Systems Command Atlantic, Norfolk, VA. 66 pages. Available on the AFTT project website (https://www.nepa.navy.mil/aftteis/).
Chapter 6	2.3-2, 6.1-5, 6.1-6	NOAA National Marine Sanctuaries, 2004 https://sanctuaries.noaa.gov/library/imast_gis.html
Chapter 6	6.1-1, 6.1-2, 6.1-3, 6.1-4	NOAA National Marine Protected Areas Center, 2015 United States Fish and Wildlife Service, 2017 https://marinecadastre.gov/data/
Chapter 6	6.1-1, 6.1-2, 6.1-3, 6.1-4	National Park Service, 2017 https://catalog.data.gov/dataset/national-park-boundariesf0a4c#sec-date
Appendix F (Habitats)	F.1-1	U.S. Department of the Navy. (2024). Phase IV Atlantic Fleet Training and Testing: Marine Habitat Database Technical Report. Naval Facilities Engineering Systems Command Atlantic, Norfolk, VA. 66 pages

Table O-1: Data Sources by Feature/Layer (continued)

<i>Feature/Layer</i>	<i>Applicable Figures</i>	<i>Data Source References</i>
Appendix F (Invertebrates)	F.3-1	U.S. Department of the Navy. (2024). Phase IV Atlantic Fleet Training and Testing: Marine Habitat Database Technical Report. Naval Facilities Engineering Systems Command Atlantic, Norfolk, VA. 66 pages
		Same as legend item: 3 NM State/Federal Boundary 9 NM State/Federal Boundary
Appendix F (Marine Mammals)	F.5-1, F.5-2, F.5-3, F.5-4, F.5-5, F.5-6, F.5-7, F.5-8, F.5-9, F.5-10, F.5-11, F.5-12	National Oceanic and Atmospheric Administration. Biologically Important Areas, Overview of BIA II [unpublished GIS data for the East Coast and Gulf of America]. Available from: https://oceannoise.noaa.gov/biologically-important-areas

Notes: AFTT = Atlantic Fleet Training and Testing; BIA = Biologically Important Areas; CO = carbon monoxide; COP = Common Operating Procedure; DAFIF = Digital Aeronautical Flight Information File; EPA = Environmental Protection Agency; GIS = Geographic Information System; NESDIS = National Environmental Satellite, Data, and Information Service; NGA = National Geospatial Intelligence Agency; NM = nautical mile; NMFS = National Marine Fisheries Service; NOAA = National Oceanic and Atmospheric Administration; OPFAC LANT = Operational Facility Atlantic; Pb = lead; PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter; PM₁₀ = particulate matter less than or equal to 10 microns in diameter; POC = Point of Contact; SFDIE = Spatial Data Standards for Facilities, Infrastructure, and Environment; SO₂ = sulfur dioxide; U.S. = United States; VA = Virginia

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