UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

Letter of Authorization
Navy Training and Testing Activities in the Atlantic Fleet Training and Testing Study Area

The Commander, U.S. Fleet Forces Command (Attn: Code N46 1562 Mitscher Ave, STE 250 Norfolk, VA 23551), and the Commander, Naval Sea Systems Command (Attn: Code SEA 04R, 1333 Isaac Hull Avenue, SE, Washington Navy Yard, DC 20376) and persons operating under their authorities (*i.e.*, Navy), are authorized to take marine mammals incidental to Department of the Navy (Navy) training and testing activities, respectively, conducted in the Atlantic Fleet Training and Testing (AFTT) Study Area (Figure 1), subject to the provisions of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*; MMPA) of 1972, as amended, and the applicable regulations (see 50 CFR §§ 218.80 – 218.89 ("the regulations")), provided they are in compliance with all terms, conditions, and requirements described herein.

A copy of this Letter of Authorization (LOA) or a document containing the equivalent requirements specified in this Authorization and the regulations, must be in the possession of the holder of this LOA, or his/her designee, in order to take marine mammals under the authority of this LOA while conducting the specified activities.

1. Effective Dates

This LOA is effective for the period of November 14, 2025, through November 13, 2032.

2. Geographic Region

The geographic region is the AFTT Study Area (Figure 1). The AFTT Study Area includes areas of the western Atlantic Ocean along the east coast of North America, the Gulf of America, and portions of the Caribbean Sea, covering approximately 2.6 million nmi^2 (8.9 million km^2) of ocean, oriented from the mean high tide line along the U.S. coast and extending east to 45° W longitude line, north to 65° N latitude line, and south to approximately the 20° N latitude line. It also includes Navy and Coast Guard pierside locations, port transit channels, bays, harbors, inshore waterways (*e.g.*, channels, rivers), civilian ports where military readiness activities occur, and vessel and aircraft transit routes among homeports, designated operating areas, and testing and training ranges.

3. Specified Activities

This Authorization is valid for the training and testing activities identified in Tables 1.5-1 and 1.5-3 through 1.5-5 of the March 2025 AFTT Training and Testing LOA application that include sonar and other transducers, explosives, air guns, pile driving/extraction activities, and vessel use in the AFTT Study Area. These activities fall under the following areas:

(a) Amphibious warfare;

(b) Anti-submarine warfare;
(c) Expeditionary warfare;
(d) Mine warfare;
(e) Surface warfare;
(f) Vessel evaluation;
(g) Unmanned systems;
(h) Acoustic and oceanographic science and technology;
(i) Vessel movement; and
(j) Other training and testing activities.

4. Permissible Methods of Taking

Navy may incidentally, but not intentionally, take marine mammals within the geographic region in the course of conducting the specified activities described in section 3 (Specified Activities), provided Navy is in complete compliance with all terms, conditions, and requirements described herein. The incidental take of marine mammals is limited to the species and stocks listed in this condition (see below) by the indicated method of take and number of takes.

(a) Incidental take by Level A and Level B harassment from testing activities is limited to the species and stocks, indicated method, and number of takes shown in Table 1.

Table 1. Authorized Incidental Take by Level A and Level B Harassment, by Species and Stock, from Navy Testing Activities.

Species	Stock	Maximum annual Level B harassment	Maximum annual Level A harassment	7-year total Level B harassment	7-year total Level A harassment
North Atlantic right whale	Western	316	1	2,036	6
Blue whale	Western North Atlantic	31	1	199	2
Bryde's whale	Primary	1	0	1	0
Fin whale	Western North Atlantic	1,524	15	9,710	93
Humpback whale	Gulf of Maine	500	5	3,186	33
Minke whale	Canadian East Coast	2,032	38	13,316	257
Rice's whale	Northern Gulf of America	294	2	1,997	5
Sei whale	Nova Scotia	389	4	2,549	27
Sperm whale	North Atlantic	5,395	4	34,373	16
Sperm whale	Northern Gulf of America	237	0	1,399	0
Dwarf sperm whale	Northern Gulf of America	173	21	1,023	72
Pygmy sperm whale	Northern Gulf of America	158	20	919	63

Dwarf sperm whale	Western North Atlantic	2,640	147	16,951	962
Pygmy sperm whale	Western North Atlantic	2,663	141	17,096	925
Blainville's beaked whale	Northern Gulf of America	114	0	733	0
Goose-beaked whale	Northern Gulf of America	419	0	2,681	0
Gervais' beaked whale	Northern Gulf of America	111	0	710	0
Blainville's beaked whale	Western North Atlantic	10,431	0	65,790	0
Goose-beaked whale	Western North Atlantic	46,017	1	290,954	2
Gervais' beaked whale	Western North Atlantic	9,678	1	62,096	1
Northern bottlenose whale	Western North Atlantic	823	1	5,090	1
Sowerby's beaked whale	Western North Atlantic	9,770	1	62,705	1
True's beaked whale	Western North Atlantic	9,684	0	62,151	0
Atlantic spotted dolphin	Northern Gulf of America	11,976	19	78,071	119
Bottlenose dolphin	Gulf of America Eastern Coastal	51	0	329	0
Bottlenose dolphin	Gulf of America Northern Coastal	5,052	16	35,305	112
Bottlenose dolphin	Gulf of America Oceanic	5,755	3	36,970	10
Bottlenose dolphin	Gulf of America Western Coastal	2,540	1	15,751	1
Bottlenose dolphin	Mississippi Sound, Lake Borgne, and Bay Boudreau	194	1	1,070	1
Bottlenose dolphin	Northern Gulf of America Continental Shelf	66,581	25	448,847	151
Bottlenose dolphin	St. Andrew Bay	32	0	211	0
Bottlenose dolphin	St. Joseph Bay	35	0	240	0
Clymene dolphin	Northern Gulf of America	533	3	3,118	4

False killer whale	Northern Gulf of America	206	0	1,263	0
Fraser's dolphin	Northern Gulf of America	216	0	1,328	0
Killer whale	Northern Gulf of America	97	0	598	0
Melon-headed whale	Northern Gulf of America	690	1	4,245	1
Pygmy killer whale	Northern Gulf of America	256	0	1,575	0
Risso's dolphin	Northern Gulf of America	180	0	1,097	0
Rough-toothed dolphin	Northern Gulf of America	1,510	3	9,920	5
Short-finned pilot whale	Northern Gulf of America	933	3	5,572	13
Striped dolphin	Northern Gulf of America	2,132	6	13,718	14
Pantropical spotted dolphin	Northern Gulf of America	5,596	6	34,923	23
Spinner dolphin	Northern Gulf of America	636	0	4,324	0
Atlantic white-sided dolphin	Western North Atlantic	7,662	5	49,052	25
Common dolphin	Western North Atlantic	103,523	121	659,876	753
Atlantic spotted dolphin	Western North Atlantic	46,117	60	288,483	398
Bottlenose dolphin	Indian River Lagoon Estuarine System	154	0	1,074	0
Bottlenose dolphin	Jacksonville Estuarine System	12	0	69	0
Bottlenose dolphin	Northern North Carolina Estuarine System	851	3	5,151	17
Bottlenose dolphin	Southern Georgia Estuarine System	1	0	1	0
Tamanend's bottlenose dolphin	Western North Atlantic Central Florida Coastal	2,797	1	16,626	4
Tamanend's bottlenose dolphin	Western North Atlantic Northern Florida Coastal	4,382	3	26,243	9
Bottlenose dolphin	Western North Atlantic Northern Migratory Coastal	6,236	26	37,917	148
Bottlenose dolphin	Western North Atlantic Offshore	66,789	76	427,270	504

Tamanend's bottlenose dolphin	Western North Atlantic South Carolina/Georgia Coastal	1,092	3	6,372	11
Bottlenose dolphin	Western North Atlantic Southern Migratory Coastal	1,015	2	5,874	8
Clymene dolphin	Western North Atlantic	63,262	89	416,118	604
False killer whale	Western North Atlantic	165	1	1,050	1
Fraser's dolphin	Western North Atlantic	1,000	1	6,602	6
Killer whale	Western North Atlantic	69	1	435	1
Long-finned pilot whale	Western North Atlantic	8,177	7	51,507	45
Melon-headed whale	Western North Atlantic	1,078	2	7,099	10
Pantropical spotted dolphin	Western North Atlantic	2,087	2	13,525	13
Pygmy killer whale	Western North Atlantic	108	0	712	0
Risso's dolphin	Western North Atlantic	15,103	20	95,004	119
Rough-toothed dolphin	Western North Atlantic	1,386	3	8,901	15
Short-finned pilot whale	Western North Atlantic	11,275	12	72,834	73
Spinner dolphin	Western North Atlantic	1,168	1	7,536	7
Striped dolphin	Western North Atlantic	87,521	137	548,894	931
White-beaked dolphin	Western North Atlantic	12	0	76	0
Harbor porpoise	Gulf of Maine/Bay of Fundy	50,625	70	332,156	421
Gray seal	Western North Atlantic	7,813	10	50,645	58
Harbor seal	Western North Atlantic	10,813	13	70,072	78
Harp seal	Western North Atlantic	11,156	3	72,257	15
Hooded seal	Western North Atlantic	1,264	1	7,777	4

(b) Incidental take by Level A and Level B harassment from training activities is limited to the species and stocks, indicated method, and number of takes shown in Table 2.

Table 2. Authorized Incidental Take by Level A and Level B Harassment, by Species and Stock, from Navy Training Activities.

Species	Stock	Maximum annual Level	Maximum annual Level	7-year total Level	7-year total Level

		B harassment	A harassment	B harassment	A harassment
North Atlantic right whale	Western	97	1	642	2
Blue whale	Western North Atlantic	40	0	265	0
Bryde's whale	Primary	10	0	69	0
Fin whale	Western North Atlantic	1,089	6	7,585	38
Humpback whale	Gulf of Maine	341	7	2,351	41
Minke whale	Canadian East Coast	2,606	18	17,676	120
Rice's whale	Northern Gulf of America	8	1	49	1
Sei whale	Nova Scotia	356	3	2,430	17
Sperm whale	North Atlantic	7,189	3	50,266	5
Sperm whale	Northern Gulf of America	38	0	254	0
Dwarf sperm whale	Northern Gulf of America	14	1	87	1
Pygmy sperm whale	Northern Gulf of America	15	2	96	2
Dwarf sperm whale	Western North Atlantic	3,678	32	25,551	221
Pygmy sperm whale	Western North Atlantic	3,625	34	25,175	231
Blainville's beaked whale	Northern Gulf of America	12	0	79	0
Goose-beaked whale	Northern Gulf of America	41	0	281	0
Gervais' beaked whale	Northern Gulf of America	14	0	90	0
Blainville's beaked whale	Western North Atlantic	15,267	1	106,751	1
Goose-beaked whale	Western North Atlantic	66,011	1	461,356	3
Gervais' beaked whale	Western North Atlantic	15,761	0	110,198	0
Northern bottlenose whale	Western North Atlantic	828	0	5,789	0
Sowerby's beaked whale	Western North Atlantic	15,846	0	110,804	0
True's beaked whale	Western North Atlantic	15,892	0	111,111	0

Atlantic spotted dolphin	Northern Gulf of America	792	1	5,515	4
Bottlenose dolphin	Gulf of America Eastern Coastal	29	0	126	0
Bottlenose dolphin	Gulf of America Northern Coastal	2,094	1	14,645	2
Bottlenose dolphin	Gulf of America Oceanic	517	1	3,611	1
Bottlenose dolphin	Gulf of America Western Coastal	791	0	2,372	0
Bottlenose dolphin	Mississippi Sound, Lake Borgne, and Bay Boudreau	1,564	0	10,944	0
Bottlenose dolphin	Northern Gulf of America Continental Shelf	4,665	3	31,959	13
Bottlenose dolphin	Nueces and Corpus Christi Bays	4	0	11	0
Bottlenose dolphin	Sabine Lake	1	0	2	0
Bottlenose dolphin	St. Andrew Bay	14	0	92	0
Bottlenose dolphin	St. Joseph Bay	7	0	47	0
Bottlenose dolphin	Tampa Bay	350	0	1,050	0
Clymene dolphin	Northern Gulf of America	66	0	459	0
False killer whale	Northern Gulf of America	24	0	160	0
Fraser’s dolphin	Northern Gulf of America	25	0	159	0
Killer whale	Northern Gulf of America	13	0	82	0
Melon-headed whale	Northern Gulf of America	81	0	561	0
Pygmy killer whale	Northern Gulf of America	29	0	198	0
Risso’s dolphin	Northern Gulf of America	23	0	155	0
Rough-toothed dolphin	Northern Gulf of America	128	0	866	0
Short-finned pilot whale	Northern Gulf of America	88	0	611	0
Striped dolphin	Northern Gulf of America	244	1	1,696	1
Pantropical spotted dolphin	Northern Gulf of America	720	3	5,036	5

Spinner dolphin	Northern Gulf of America	20	0	135	0
Atlantic white-sided dolphin	Western North Atlantic	3,233	4	22,590	18
Common dolphin	Western North Atlantic	165,863	39	1,160,553	261
Atlantic spotted dolphin	Western North Atlantic	74,649	27	508,116	179
Bottlenose dolphin	Indian River Lagoon Estuarine System	1,422	0	9,601	0
Bottlenose dolphin	Jacksonville Estuarine System	348	0	2,408	0
Bottlenose dolphin	Northern Georgia/Southern South Carolina Estuarine System	2	0	6	0
Bottlenose dolphin	Northern North Carolina Estuarine System	9,181	3	63,391	20
Bottlenose dolphin	Southern Georgia Estuarine System	122	1	710	1
Bottlenose dolphin	Southern North Carolina Estuarine System	162	0	535	0
Tamanend's bottlenose dolphin	Western North Atlantic Central Florida Coastal	7,692	2	49,736	6
Tamanend's bottlenose dolphin	Western North Atlantic Northern Florida Coastal	17,003	2	116,702	4
Bottlenose dolphin	Western North Atlantic Northern Migratory Coastal	64,712	34	450,293	227
Bottlenose dolphin	Western North Atlantic Offshore	120,151	27	818,458	173
Tamanend's bottlenose dolphin	Western North Atlantic South Carolina/Georgia Coastal	3,867	3	24,408	11
Bottlenose dolphin	Western North Atlantic Southern Migratory Coastal	8,868	7	56,933	44
Clymene dolphin	Western North Atlantic	69,460	15	486,205	94
False killer whale	Western North Atlantic	406	0	2,821	0
Fraser's dolphin	Western North Atlantic	1,904	2	12,826	8
Killer whale	Western North Atlantic	110	0	759	0
Long-finned pilot whale	Western North Atlantic	13,501	5	94,499	18

Melon-headed whale	Western North Atlantic	3,517	1	23,968	2
Pantropical spotted dolphin	Western North Atlantic	10,976	3	75,620	12
Pygmy killer whale	Western North Atlantic	368	1	2,512	1
Risso's dolphin	Western North Atlantic	22,128	5	150,830	24
Rough-toothed dolphin	Western North Atlantic	3,365	3	22,647	10
Short-finned pilot whale	Western North Atlantic	21,745	3	149,080	18
Spinner dolphin	Western North Atlantic	4,185	1	28,962	3
Striped dolphin	Western North Atlantic	121,279	26	848,940	178
White-beaked dolphin	Western North Atlantic	4	0	27	0
Harbor porpoise	Gulf of Maine/Bay of Fundy	36,396	73	253,899	505
Gray seal	Western North Atlantic	7,862	14	54,598	93
Harbor seal	Western North Atlantic	11,207	18	77,914	125
Harp seal	Western North Atlantic	14,632	2	102,365	12
Hooded seal	Western North Atlantic	460	1	3,205	1

(c) Incidental take by serious injury or mortality from explosives during testing activities is limited to the species and stocks and the number of takes shown in Table 3.

Table 3. Authorized Serious Injury or Mortality, by Species and Stock, from Explosives During Navy Testing Activities (includes Small Ship Shock Trials).

Species	Stock	Annual Authorized Serious Injury or Mortality	7-year Authorized Serious Injury or Mortality
Striped dolphin	Northern Gulf of America	0.29	2
Pantropical spotted dolphin	Northern Gulf of America	0.71	5
Bottlenose dolphin	Western North Atlantic Offshore	0.14	1

(d) Incidental take by serious injury or mortality from explosives during training activities is limited to the species and stocks and the number of takes shown in Table 4.

Table 4. Authorized Serious Injury or Mortality, by Species and Stock, from Explosives During Navy Training Activities.

Species	Stock	Annual Authorized Serious Injury or Mortality	7-year Authorized Serious Injury or Mortality
Bottlenose dolphin	Western North Atlantic Offshore	0.14	1
Tamanend's bottlenose dolphin	Western North Atlantic South Carolina/Georgia Coastal	0.14	1
Clymene dolphin	Western North Atlantic	0.43	3

(e) Incidental take by serious injury or mortality from vessel strike is limited to a total of three large whales over the total 7-year period during Navy training and testing activities combined from the species listed in Table 5. Of the three total takes, no more than one or two whales can be taken by vessel strike from each species and stock, as indicated in Table 5.

Table 5. Authorized Serious Injury or Mortality, by Species and Stock, from Vessel Strike Incidental to Navy Training and Testing Activities Combined.

Species	Stock	Annual Authorized Serious Injury or Mortality	7-year Authorized Serious Injury or Mortality (no more than three large whales over the 7-year period during Navy training and testing activities combined)
Fin whale	Western North Atlantic	0.14	1
Humpback whale	Gulf of Maine	0.29	2
Minke whale	Canadian East Coast	0.14	1
Sei whale	Nova Scotia	0.14	1
Sperm whale	North Atlantic	0.14	1
Sperm whale	Northern Gulf of America	0.14	1

5. Prohibitions

Except for incidental take described under section 4 (Permissible Methods of Taking), it is unlawful for any person to do the following in connection with the activities described herein:

(a) Violate, or fail to comply with, the terms, conditions, and requirements of this LOA or the regulations;
(b) Take any marine mammal not specified in Table 1 through Table 5;

(c) Take any marine mammal specified in Table 1 through Table 5 in any manner other than as specified in section 4 (Permissible Methods of Taking) or number greater than those specified in Table 1 through Table 5; or
(d) Take a marine mammal specified in Table 1 through Table 5 after NMFS determines such taking results in more than a negligible impact on the species or stock.

6. Mitigation Requirements

When conducting the specified training and testing activities in the geographic region, Navy must implement the following mitigation measures:

(a) Environmental awareness and education

Navy personnel (including civilian personnel) involved in mitigation and training or testing activity reporting under the specified activities will complete one or more modules of the U.S. Navy Afloat Environmental Compliance Training Series, as identified in their career path training plan. Modules include: Introduction to the U.S. Navy Afloat Environmental Compliance Training Series, Marine Species Awareness Training; U.S. Navy Protective Measures Assessment Protocol; and U.S. Navy Sonar Positional Reporting System and Marine Mammal Incident Reporting.

(b) Activity-Based Mitigation

Activity-based mitigation is mitigation that the Navy must implement whenever and wherever an applicable military readiness activity takes place within the AFTT Study Area.

i. Activity-Based Mitigation for Active Acoustic Stressors

Table 6 through Table 9 describe required activity-based mitigation for acoustic stressors. This mitigation does not apply to:

- Sources not operated under positive control (*e.g.*, moored oceanographic sources);
- Sources used for safety of navigation (*e.g.*, fathometers);
- Sources used or deployed by aircraft operating at high altitudes (*e.g.*, bombs deployed from high altitude (since personnel cannot effectively observe the surface of the water));
- Sources used, deployed, or towed by unmanned platforms except when escort vessels are already participating in the event and have positive control over the source;
- Sources used by submerged submarines (*e.g.*, sonar (since they cannot conduct visual observation));
- De minimis sources (*e.g.*, those >200 kHz);
- Unattended sources, including those used for acoustic and oceanographic research; and
- Vessel-based, unmanned vehicle-based, or towed in-water sources when marine mammals (*e.g.*, dolphins) are determined to be intentionally swimming at the bow or alongside or directly behind the vessel, vehicle, or device (*e.g.*, to bow-ride or

wake-ride).

Table 6. Mitigation for Active Acoustic Sources with Powerdown and Shutdown Capabilities

Activity or Stressor	• Low-frequency active sonar ≥200 dB • Mid-frequency active sonar sources that are hull mounted on a surface ship (including surfaced submarines) • Broadband and other active acoustic sources >200 dB
Mitigation Zones and Requirements	• Within 1,000 yd (914.4 m) from a marine mammal, Navy personnel must power down active acoustic sources by 6 decibels (dB) total. • Within 500 yd (457.2 m) from a marine mammal, Navy personnel must power down active acoustic sources by 10 dB total. • Within 200 yd (182.9 m) from a marine mammal, Navy personnel must shut down active acoustic sources.
Lookout Requirements	• One Lookout in or on one of the following: aircraft; pierside, moored, or anchored vessel; underway vessel with space/crew restrictions (including small boats); or underway vessel already participating in the event that is escorting (and has positive control over sources used, deployed, or towed by) an unmanned platform. • Two Lookouts on an underway vessel without space or crew restrictions. • Lookouts must use information from passive acoustic detections to inform visual observations when passive acoustic devices are already being used in the event.
Mitigation Zone Observation	• Navy personnel must observe the applicable mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of using active acoustic sources (e.g., while maneuvering on station). • Navy personnel must observe the applicable mitigation zone for marine mammals during use of active acoustic sources.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing or powering up active sonar transmission). • The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 7. Mitigation for Active Acoustic Sources with Shutdown (but not power down) Capabilities.

Activity or Stressor	• Low-frequency active sonar <200 dB

	• Mid-frequency active sonar sources that are not hull mounted on a surface ship (*e.g.*, dipping sonar, towed arrays) • High-frequency active sonar • Air guns • Broadband and other active acoustic sources <200 dB
Mitigation Zones and Requirements	• At 200 yd (182.9 m) from a marine mammal, Navy personnel must shut down active acoustic sources.
Lookout Requirements	• One Lookout in or on one of the following: aircraft; pierside, moored, or anchored vessel; underway vessel with space/crew restrictions (including small boats); or underway vessel already participating in the event that is escorting (and has positive control over sources used, deployed, or towed by) an unmanned platform. • Two Lookouts on an underway vessel without space or crew restrictions. • Lookouts must use information from passive acoustic detections to inform visual observations when passive acoustic devices are already being used in the event.
Mitigation Zone Observation	• Navy personnel must observe the applicable mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of using active acoustic sources (e.g., while maneuvering on station). • Navy personnel must observe the applicable mitigation zone for marine mammals during use of active acoustic sources.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing or powering up active sonar transmission). • The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 8. Mitigation for Pile Driving and Extraction.

Activity or Stressor	• Vibratory and impact pile driving and extraction
Mitigation Zones and Requirements	• Navy personnel must cease pile driving or extraction if a marine mammal is sighted within 100 yd (91.4 m) of a pile being driven or extracted.
Lookout Requirements	• One Lookout in or on one of the following: shore, pier, or small boat.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals and floating vegetation for 15 minutes prior to the initial start of pile driving or pile extraction.

	• Navy personnel must use soft start techniques when impact pile driving. Soft start requires the Navy to conduct three sets of strikes (three strikes per set) at reduced hammer energy with a 30-second waiting period between each set. A soft start must be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer. • Navy personnel must observe the mitigation zone for marine mammals during pile driving or extraction.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing vibratory or impact pile driving or extraction). The wait period for this activity is 15 minutes.

Table 9. Mitigation for Weapons Firing Noise.

Activity or Stressor	• Explosive and non-explosive large-caliber gunnery firing noise (surface-to-surface and surface-to-air)
Mitigation Zones and Requirements	• Navy personnel must cease weapons firing if a marine mammal is sighted within 30 degrees on either side of the firing line out to 70 yd (64 m) from the gun muzzle (cease fire).
Lookout Requirements	• One Lookout on a vessel.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of large-caliber gun firing (e.g., during target deployment). • Navy personnel must observe the mitigation zone for marine mammals during large-caliber gun firing.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing explosive and non-explosive large-caliber gunnery firing noise (surface-to-surface and surface-to-air)). The wait period for this activity is 30 minutes.

ii. Activity-Based Mitigation for Explosive Stressors

Table 10 through Table 19 describe required activity-based mitigation for explosive stressors. This mitigation does not apply to explosives:

- Deployed by aircraft operating at high altitudes;
- Deployed by submerged submarines, except for explosive torpedoes;
- Deployed against aerial targets;
- During vessel-launched missile or rocket events;
- Used at or below the *de minimis* threshold; and
- Deployed by unmanned platforms except when escort vessels are already participating in the event and have positive control over the explosive.

Table 10. Mitigation for Explosive Bombs.

Activity or Stressor	• Any NEW
Mitigation Zones and Requirements	• Navy personnel must cease explosive bomb use if a marine mammal is sighted within 2,500 yd (2,286 m) from the intended target.
Lookout Requirements	• One Lookout in an aircraft.
Mitigation Zone Observation	• Navy personnel must observe the applicable mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of bomb delivery (e.g., when arriving on station). • Navy personnel must observe the applicable mitigation zone for marine mammals during bomb delivery. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of explosive bombs of any NEW). The wait period for this activity is 10 minutes.

Table 11. Mitigation for Explosive Gunnery.

Activity or Stressor	• Air-to-surface medium-caliber, surface-to-surface medium-caliber, surface-to-surface large-caliber ordnance
Mitigation Zones and Requirements	• Navy personnel must cease air-to-surface medium-caliber use if a marine mammal is sighted within 200 yd (182.9 m) of the intended impact location. • Navy personnel must cease surface-to-surface medium-caliber use if a marine mammal is sighted within 600 yd (548.6 m) of the intended impact location. • Navy personnel must cease surface-to-surface large-caliber use if a marine mammal is sighted within 1,000 yd (914.4 m) of the intended impact location.
Lookout Requirements	• One Lookout on a vessel or in an aircraft.
Mitigation Zone Observation	• Navy personnel must observe the applicable mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of gun firing (e.g., while maneuvering on station). • Navy personnel must observe the applicable mitigation zone for marine mammals during gunnery fire.

	• If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing air-to-surface medium-caliber, surface-to-surface medium-caliber, surface-to-surface large-caliber explosive gunnery). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 12. Mitigation for Explosive Line Charges.

Activity or Stressor	• Any NEW
Mitigation Zones and Requirements	• Navy personnel must cease explosive line charges if a marine mammal is sighted within 900 yd (823 m) of the detonation site.
Lookout Requirements	• One Lookout on a vessel.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of detonations (e.g., while maneuvering on station). • Navy personnel must observe the mitigation zone for marine mammals during detonations. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of explosive line charges of any NEW). The wait period for this activity is 30 minutes.

Table 13. Mitigation for Explosive Mine Countermeasure and Neutralization (No Divers).

Activity or Stressor	• 0.1-5 lb (0.05-2.3 kg) NEW, >5 lb (2.3 kg) NEW
Mitigation Zones and Requirements	• Navy personnel must cease 0.1-5 lb (0.05-2.3 kg) NEW use if a marine mammal is sighted within 600 yd (548.6 m) from the detonation site. • Navy personnel must cease >5 lb (2.3 kg) NEW use if a marine mammal is sighted within 2,100 yd (1,920.2 m) from the detonation site.
Lookout Requirements	• One Lookout on a vessel or in an aircraft during 0.1-5 lb (0.05-2.3 kg) NEW use. • Two Lookouts, one on a small boat and one in an aircraft during >5 lb (2.3 kg) NEW use.
Mitigation Zone Observation	• Navy personnel must observe the applicable mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of detonations (e.g., while maneuvering on station; typically, 10 or 30 minutes depending on fuel constraints). • Navy personnel must observe the applicable mitigation zone for marine mammals during detonations or fuse initiation. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for 10 or 30 minutes (depending on fuel constraints) for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing explosive mine countermeasure and neutralization using 0.1-5 pound (lb) (0.05-2.3 kilogram (kg)) NEW and >5 lb (2.3 kg) NEW). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 14. Mitigation for Explosive Mine Neutralization (With Divers).

Activity or Stressor	• 0.1-20 lb (0.05-9.1 kg) NEW (positive control), 0.1-20 lb (0.05-9.1 kg) NEW (time-delay), >20-60 lb (9.1-27.2 kg) NEW (positive control)

Mitigation Zones and Requirements	• Navy personnel must cease 0.1-20 lb (0.05-9.1 kg) NEW (positive control) use if a marine mammal is sighted within 500 yd (457.2 m) of the detonation site (cease fire). • Navy personnel must cease 0.1-20 lb (0.05-9.1 kg) NEW (time-delay) and >20-60 lb (9.1-27.2 kg) NEW (positive control) use if a marine mammal is sighted within 1,000 yd (914.4 m) of the detonation site (cease fire).
Lookout Requirements	• Two Lookouts in two small boats (one Lookout per boat) or one small boat and one rotary-wing aircraft (with one Lookout each) during 0.1-20 lb (0.05-9.1 kg) NEW (positive control) use. • Four Lookouts in two small boats (two Lookouts per boat) and one additional Lookout in an aircraft if used in the event during 0.1-20 lb (0.05-9.1 kg) NEW (time-delay) and >20-60 lb (9.1-27.2 kg) NEW (positive control) use.
Mitigation Zone Observation	• Time-delay devices must be set not to exceed 10 minutes. • Navy personnel must observe the applicable mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of detonations or fuse initiation for positive control events (e.g., while maneuvering on station) or for 30 minutes prior for time-delay events. • Navy personnel must observe the applicable mitigation zone for marine mammals during detonations or fuse initiation. • When practical based on mission, safety, and environmental conditions: o Boats must observe from the mitigation zone radius mid-point. o When two boats are used, boats must observe from opposite sides of the mine location. o Platforms must travel a circular pattern around the mine location. o Boats must have one Lookout observe inward toward the mine location and one Lookout observe outward toward the mitigation zone perimeter. o Divers must be part of the Lookout Team. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for 30 minutes for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing explosive mine neutralization (with divers) using 0.1-20 lb (0.05-9.1 kg) NEW (positive control), 0.1-20 lb (0.05-9.1 kg) NEW (time-delay), and >20-60 lb (9.1-27.2

	kg) NEW (positive control)). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 15. Mitigation for Explosive Missiles and Rockets.

Activity or Stressor	• 0.6–20 lb (0.3-9.1 kg) NEW (air-to-surface), >20–500 lb (9.1-226.8 kg) NEW (air-to-surface)
Mitigation Zones and Requirements	• Navy personnel must cease 0.6-20 lb (0.3-9.1 kg) NEW (air-to-surface) use if a marine mammal is sighted within 900 yd (823 m) of the intended impact location (cease fire). • Navy personnel must cease >20-500 lb (9.1-226.8 kg) NEW (air-to-surface) use if a marine mammal is sighted within 2,000 yd (1,828.8 m) of the intended impact location (cease fire).
Lookout Requirements	• One Lookout in an aircraft.
Mitigation Zone Observation	• Navy personnel must observe the applicable mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of missile or rocket delivery (e.g., during a fly-over of the mitigation zone). • Navy personnel must observe the applicable mitigation zone for marine mammals during missile or rocket delivery. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of explosive missiles and rockets using 0.6-20 lb (0.3-9.1 kg) NEW (air-to-surface) and >20-500 lb (9.1-226.8 kg) NEW (air-to-surface)). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 16. Mitigation for Explosive Sonobuoys and Research-Based Sub-Surface Explosives.

Activity or Stressor	• Any NEW of sonobuoys and 0.1-5 lb (0.05-2.3 kg) NEW for other types of sub-surface explosives used in research applications

Mitigation Zones and Requirements	• Navy personnel must cease use of any NEW of sonobuoys and 0.1-5 lb (0.05-2.3 kg) NEW for other types of sub-surface explosives used in research applications if a marine mammal is sighted within 600 yd (548.6 m) of the device or detonation sites (cease fire).
Lookout Requirements	• One Lookout on a small boat or in an aircraft. • Conduct passive acoustic monitoring for marine mammals; use information from detections to assist visual observations.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of detonations (e.g., during sonobuoy deployment, which typically lasts 20-30 minutes). • Navy personnel must observe the mitigation zone for marine mammals during detonations. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of any NEW of explosive sonobuoys and 0.1-5 lb (0.05-2.3 kg) NEW for other types of sub-surface explosives used in research applications). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 17. Mitigation for Explosive Torpedoes.

Activity or Stressor	• Any NEW
Mitigation Zones and Requirements	• Navy personnel must cease use of explosive torpedoes of any NEW if a marine mammal is sighted within 2,100 yd (1,920.2 m) of the intended impact location.
Lookout Requirements	• One Lookout in an aircraft. • Conduct passive acoustic monitoring for marine mammals; use information from detections to assist visual observations.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals, floating vegetation, and jellyfish aggregations immediately prior to the initial start of detonations (e.g., during target deployment).

	• Navy personnel must observe the mitigation zone for marine mammals and jellyfish aggregations during torpedo launches. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • After the event, when practical, Navy personnel must observe the detonation vicinity for injured or dead marine mammals. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of explosive torpedoes of any NEW). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 18. Mitigation for Ship Shock Trials.

Activity or Stressor	• Any NEW
Mitigation Zones and Requirements	• Navy personnel must cease ship shock trials of any NEW if a marine mammal is sighted within 3.5 nmi (6.5 km) of the target ship hull (cease fire).
Lookout Requirements	• On the day of the event, 10 observers (Lookouts and third-party observers combined), spread between aircraft or multiple vessels as specified in the event-specific mitigation plan.
Mitigation Zone Observation	• Navy personnel must develop a detailed, event-specific monitoring and mitigation plan in the year prior to the event and provide it to NMFS for review. • Beginning at first light on days of detonation until the moment of detonation (as allowed by safety measures), Navy personnel must observe the mitigation zone for marine mammals, floating vegetation, jellyfish aggregations, large schools of fish, and flocks of seabirds. • If any injured or dead marine mammals are observed after an individual detonation, Navy personnel must follow established incident reporting procedures and halt any remaining detonations until Navy personnel can consult with NMFS and review or adapt the event-specific mitigation plan, if necessary. • During the 2 days following the event (minimum) and up to 7 days following the event (maximum), and as specified in the event-specific mitigation plan, Navy personnel must observe the detonation vicinity for injured or dead marine mammals.

Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing ship shock trials). The wait period for this activity is 30 minutes.

Table 19. Mitigation for Sinking Exercises (SINKEX).

Activity or Stressor	• Any NEW
Mitigation Zones and Requirements	• Navy personnel must cease SINKEX of any NEW if a marine mammal is sighted within 2.5 nmi (4.6 km) of the target ship hull (cease fire).
Lookout Requirements	• Two Lookouts, one on a vessel and one in an aircraft. • Conduct passive acoustic monitoring for marine mammals; use information from detections to assist visual observations.
Mitigation Zone Observation	• During aerial observations for 90 minutes prior to the initial start of weapon firing, Navy personnel must observe the mitigation zone for marine mammals, floating vegetation, and jellyfish aggregations. • From the vessel during weapon firing, and from the aircraft and vessel immediately after planned or unplanned breaks in weapon firing of more than 2 hours, Navy personnel must observe the mitigation zone for marine mammals. • If a marine mammal is visibly injured or killed as a result of detonation, explosives use in the event shall be suspended immediately and established incident reporting procedures shall be followed. • Navy personnel must observe the detonation vicinity for injured or dead marine mammals for 2 hours after sinking the vessel or until sunset, whichever comes first. If any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing SINKEX). The wait period for this activity is 30 minutes.

iii. Activity-Based Mitigation for Non-Explosive Ordnance

Table 20 through Table 22 describe required activity-based mitigation for non-explosive ordnance. This mitigation does not apply to non-explosive ordnance deployed:

- By aircraft operating at high altitudes;
- Against aerial targets;
- During vessel-launched missile or rocket events; and

- By unmanned platforms except when escort vessels are already participating in the event and have positive control over ordnance deployment.

Table 20. Mitigation for Non-Explosive Aerial-Deployed Mines and Bombs.

Activity or Stressor	• Non-explosive aerial-deployed mines and non-explosive bombs
Mitigation Zones and Requirements	• Navy personnel must cease using non-explosive aerial-deployed mines and non-explosive bombs if a marine mammal is sighted within 1,000 yd (914.4 m) of the intended target (cease fire).
Lookout Requirements	• One Lookout in an aircraft.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals and floating vegetation immediately prior to the initial start of mine or bomb delivery (e.g., when arriving on station). • Navy personnel must observe the mitigation zone for marine mammals during mine or bomb delivery.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of non-explosive aerial-deployed mines and non-explosive bombs). The wait period for this activity is 10 minutes.

Table 21. Mitigation for Non-Explosive Gunnery.

Activity or Stressor	• Non-explosive surface-to-surface large-caliber ordnance, non-explosive surface-to-surface and air-to-surface medium-caliber ordnance, non-explosive surface-to-surface and air-to-surface small-caliber ordnance
Mitigation Zones and Requirements	• Navy personnel must cease non-explosive surface-to-surface large-caliber ordnance, non-explosive surface-to-surface and air-to-surface medium-caliber ordnance, and non-explosive surface-to-surface and air-to-surface small-caliber ordnance use if a marine mammal is sighted within 200 yd (182.9 m) of the intended impact location (cease fire).
Lookout Requirements	• One Lookout on a vessel or in an aircraft.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals and floating vegetation immediately prior to the start of gun firing (e.g., while maneuvering on station). • Navy personnel must observe the mitigation zone for marine mammals during gunnery firing.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of non-explosive surface-to-surface large-caliber ordnance, non-explosive surface-to-surface and air-to-surface medium-caliber ordnance, and non-explosive surface-

	to-surface and air-to-surface small-caliber ordnance). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

Table 22. Mitigation for Non-Explosive Missiles and Rockets.

Activity or Stressor	• Non-explosives (air-to-surface)
Mitigation Zones and Requirements	• Navy personnel must cease non-explosive missile and rocket (air-to-surface) use if a marine mammal is sighted within 900 yd (823 m) of the intended impact location.
Lookout Requirements	• One Lookout in an aircraft.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals and floating vegetation immediately prior to the start of missile or rocket delivery (e.g., during a fly-over of the mitigation zone). • Navy personnel must observe the mitigation zone for marine mammals during missile or rocket delivery.
Commencement/ Recommencement Conditions	• Navy personnel must ensure one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing use of non-explosive missiles and rockets (air-to-surface)). The wait period for this activity is 30 minutes for activities conducted from vessels and for activities conducted by aircraft that are not fuel constrained and 10 minutes for activities involving aircraft that are fuel constrained (e.g., rotary-wing aircraft, fighter aircraft).

iv. Activity-Based Mitigation for Physical Disturbance and Strike Stressors

Table 23 through
Table 25 describe required activity-based mitigation for physical disturbance and strike stressors. Activity-based mitigation for physical disturbance and strike stressors will not be implemented:

- By submerged submarines;
- By unmanned vehicles except when escort vessels are already participating in the event and have positive control over the unmanned vehicle movements;
- When marine mammals (e.g., dolphins) are determined to be intentionally swimming at the bow, alongside the vessel or vehicle, or directly behind the vessel or vehicle (e.g., to bow-ride or wake-ride);
- When pinnipeds are hauled out on man-made navigational structures, port structures, and vessels; and
- When impractical based on mission requirements (e.g., during certain aspects of amphibious exercises).

Table 23. Mitigation for Manned Surface Vessels.

Activity or Stressor	• Manned surface vessels, including surfaced submarines
Mitigation Zones and Requirements	• Underway manned surface vessels must maneuver themselves (which may include reducing speed) to maintain the following distances as mission and circumstances allow: ○ 500 yd (457.2 m) from whales. ○ 200 yd (182.9 m) from other marine mammals.
Lookout Requirements	• One or more Lookouts on manned underway surface vessels in accordance with the most recent navigation safety instruction.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals immediately prior to manned surface vessels getting underway and while underway.

Table 24. Mitigation for Unmanned Vehicles.

Activity or Stressor	• Unmanned Surface Vehicles and Unmanned Underwater Vehicles already being escorted (and operated under positive control) by a manned surface support vessel
Mitigation Zones and Requirements	• A surface support vessel that is already participating in the event, and has positive control over the unmanned vehicle, must maneuver the unmanned vehicle (which may include reducing its speed) to ensure it maintains the following distances as mission and circumstances allow: ○ 500 yd (457.2 m) from whales. ○ 200 yd (182.9 m) from other marine mammals.
Lookout Requirements	• One Lookout on a surface support vessel that is already participating in the event, and has positive control over the unmanned vehicle.
Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals immediately prior to unmanned vehicles getting underway and while underway.

Table 25. Mitigation for Towed In-water Devices.

Activity or Stressor	• In-water devices towed by an aircraft, a manned surface vessel, or an Unmanned Surface Vehicle or Unmanned Underwater Vehicle already being escorted (and operated under positive control) by a manned surface vessel
Mitigation Zones and Requirements	• Manned towing platforms, or surface support vessels already participating in the event that have positive control over an unmanned vehicle that is towing an in-water device, must maneuver itself or the unmanned vehicle (which may include reducing speed) to ensure towed in-water devices maintain the following distances as mission and circumstances allow: ○ 250 yd (228.6 m) from marine mammals.
Lookout Requirements	• One Lookout on the manned towing vessel or aircraft, or on a surface support vessel that is already participating in the event and has positive control over an unmanned vehicle that is towing an in-water device.

Mitigation Zone Observation	• Navy personnel must observe the mitigation zone for marine mammals immediately prior to and while in-water devices are being towed.

v. Commencement or Recommencement Conditions

Navy must not commence or recommence an activity after a marine mammal is observed within a relevant mitigation zone until one of the following conditions has been met:

- A Lookout observes the animal exiting the mitigation zone;
- A Lookout concludes that the animal has exited the mitigation zone based on its observed course, speed, and movement relative to the mitigation zone;
- A Lookout affirms the mitigation zone has been clear from additional sightings for the activity-specific wait period; or
- For mobile events, the stressor has transited a distance equal to double the mitigation zone size beyond the location of the last sighting.

(c) Geographic Mitigation Areas

Geographic mitigation is mitigation that the Navy must implement whenever an applicable military readiness activity takes place within the designated areas in Figure 2.

Should national security require the Navy to exceed a requirement(s) in measure (6)(c)(i) through measure (6)(c)(ix), Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, sonar hours, explosives usage, or restricted area use) in its annual activity reports submitted to NMFS.

i. Ship Shock Trial Mitigation Area

A. Navy personnel must not conduct ship shock trials within the portion of the ship shock trial box that overlaps the Jacksonville Operating Area from November 15 through April 15.
B. Pre-event planning for ship shock trials must include the selection of one primary and two secondary sites (within one of the ship shock trial boxes) where marine mammal abundance is expected to be the lowest during an event, with the primary and secondary locations located more than 2 nmi (3.7 km) from the western boundary of the Gulf Stream for events planned within the portion of the ship shock trial box that overlaps the Jacksonville Operating Area.
C. If Navy personnel determine during pre-event visual observations that the primary site is environmentally unsuitable (*e.g.*, continuous observations of marine mammals), personnel must evaluate the potential to move the event to one of the secondary sites in accordance with the event-specific mitigation and monitoring plan.

ii. Major Training Exercise Planning Awareness Mitigation Areas

A. Within Major Training Exercise Planning Awareness Mitigation Areas located in the Northeast (*i.e.*, the combined areas within the Gulf of Maine, over the continental shelves off Long Island, Rhode Island, Massachusetts, and Maine), the Navy must not conduct any full or partial Major Training Exercises (MTEs).
B. Within Major Training Exercise Planning Awareness Mitigation Areas located in the Mid-Atlantic (*i.e.*, the combined areas off Maryland, Delaware, and North Carolina), the Navy must not conduct any full or partial MTEs to the maximum extent practical, and must not conduct more than four full or partial MTEs per year.
C. Within the combined MTE Planning Awareness Mitigation Areas located in the Gulf of America, the Navy must not conduct any MTEs.

iii. Northeast North Atlantic Right Whale Mitigation Area

A. The Navy must minimize the use of low-frequency active sonar, mid-frequency active sonar, and high-frequency active sonar in the mitigation area to the maximum extent practical.
B. The Navy must not detonate in-water explosives (including underwater explosives and explosives deployed against surface targets) within the mitigation area.
C. The Navy must not detonate explosive sonobuoys within 3 nmi (5.6 km) of the mitigation area.
D. The Navy must not use non-explosive bombs within the mitigation area.
E. During non-explosive torpedoes events within the mitigation area:

1. The Navy must conduct activities during daylight hours in Beaufort sea state 3 or less;
2. The Navy must post two Lookouts in an aircraft during dedicated aerial surveys, and one Lookout on the submarine participating in the event (when surfaced), in addition to Lookouts required as described in Table 22.
   (*i*) Lookouts must begin conducting visual observations immediately prior to the start of an event.
   (*ii*) If floating vegetation or marine mammals are observed in the event vicinity, the event must not commence until the vicinity is clear or the event is relocated to an area where the vicinity is clear.
   (*iii*) Lookouts must continue to conduct visual observations during the event.
   (*iv*) If marine mammals are observed in the vicinity, the event must cease until one of the commencement or recommencement conditions in measure 6(b)(v) of this LOA is met.
3. During transits and normal firing, surface ships must maintain a speed of no more than 10 knots (kn; 18.5 kilometer/hour (km/hr)); during submarine target firing, surface ships must maintain speeds of no more than 18 kn (33.3 km/hr); and during vessel target firing, surface ship speeds may exceed 18 kn (33.3 km/hr) for brief periods of time (*e.g.*, 10-15 minutes).

F. For vessel transits within the mitigation area:

1. The Navy must conduct a web query or e-mail inquiry to the North Atlantic Right Whale Sighting Advisory System or WhaleMap

(*https://whalemap.org/*) to obtain the latest North Atlantic right whale sightings data prior to transiting the mitigation area.

2. To the maximum extent practical, the Navy must provide Lookouts the sightings data prior to standing watch. Lookouts must use that data to help inform visual observations during vessel transits.
3. Surface ships must implement speed reductions after observing a North Atlantic right whale, if transiting within 5 nmi (9.3 km) of a sighting reported to the North Atlantic Right Whale Sighting Advisory System within the past week, and when transiting at night or during periods of restricted visibility.

iv. Gulf of Maine Marine Mammal Mitigation Area

A. The Navy must not use more than 200 total hours of surface ship hull-mounted mid-frequency active sonar annually within the mitigation area.

v. Martha's Vineyard North Atlantic Right Whale Mitigation Area

A. The Navy must avoid conducting vessel propulsion testing events in areas that overlap with the Martha's Vineyard North Atlantic Right Whale Mitigation Area, to the maximum extent practical.

vi. Jacksonville Operating Area North Atlantic Right Whale Mitigation Area

A. From November 15 to April 15 within the mitigation area, prior to vessel transits or military readiness activities involving active sonar, in-water explosives (including underwater explosives and explosives deployed against surface targets), or non-explosive ordnance deployed against surface targets (including aerial-deployed mines), the Navy must initiate communication with Fleet Area Control and Surveillance Facility, Jacksonville to obtain Early Warning System data. The facility must advise of all reported North Atlantic right whale sightings in the vicinity of planned vessel transits and military readiness activities. Sightings data must be used when planning event details (*e.g.*, timing, location, duration) to minimize impacts to North Atlantic right whale to the maximum extent practical.
B. To the maximum extent practical, Navy personnel must provide the sightings data to Lookouts prior to standing watch to help inform visual observations.

vii. Southeast North Atlantic Right Whale Mitigation Area

A. From November 15 to April 15 within the mitigation area, to the maximum extent practical, the Navy must minimize use of helicopter dipping sonar (a mid-frequency active sonar source) and low-frequency or surface ship hull-mounted mid-frequency active sonar during navigation training or object detection.
B. From November 15 to April 15 within the mitigation area, the Navy must not use high-frequency active sonar; or low-frequency or mid-frequency active sonar with the exception of the sources listed in measure (6)(c)(vii)(A) in accordance with that measure.

C. From November 15 to April 15 within the mitigation area, the Navy must not detonate in-water explosives (including underwater explosives and explosives deployed against surface targets).
D. From November 15 to April 15, the Navy must not detonate explosive sonobuoys within 3 nmi (5.6 km) of the mitigation area.
E. From November 15 to April 15 within the mitigation area, the Navy must not deploy non-explosive ordnance against surface targets (including aerial-deployed mines).
F. From November 15 to April 15 within the mitigation area, surface ships must minimize north-south transits to the maximum extent practical, and must implement speed reductions to the maximum extent practicable after they observe a North Atlantic right whale, if they are within 5 nmi (9.3 km) of an Early Warning System sighting reported within the past 12 hours, and at night and in restricted visibility.
G. From November 15 to April 15 within the mitigation area, the Navy must not conduct vessel propulsion testing.
H. From November 15 to April 15 within the mitigation area, prior to vessel transits or military readiness activities involving active sonar, in-water explosives (including underwater explosives and explosives deployed against surface targets), or non-explosive ordnance deployed against surface targets (including aerial-deployed mines), the Navy must initiate communication with Fleet Area Control and Surveillance Facility, Jacksonville to obtain Early Warning System sightings data. The facility must advise of all reported North Atlantic right whale sightings in the vicinity of planned vessel transits and military readiness activities. To the maximum extent practical, the Navy must provide Lookouts the sightings data prior to standing watch to help inform visual observations.

viii. Dynamic North Atlantic Right Whale Mitigation Areas

A. The Navy must provide North Atlantic right whale Dynamic Management Area information (*e.g.*, location and dates) to applicable assets transiting and training or testing in the vicinity of the Dynamic Management Area.

1. The broadcast awareness notification messages must alert assets (and their Lookouts) to the possible presence of North Atlantic right whale in their vicinity.
2. Lookouts must use the information to help inform visual observations during military readiness activities that involve vessel movements, active sonar, in-water explosives (including underwater explosives and explosives deployed against surface targets), or non-explosive ordnance deployed against surface targets in the mitigation area.

B. In PMAP reports generated in the Dynamic North Atlantic Right Whale Mitigation Area, Navy must:

1. Provide the WhaleMap web address (*https://whalemap.org*);
2. Advise that risk of whale strike is increased (1) after observing a NARW, (2) when operating within 5 nmi (9.3 km) of a known NARW sighting reported

within the past 24 hours, (3) within a NMFS-designated Seasonal Management Area, Dynamic Management Area, or Slow Zone, and (4) when transiting at night or during periods of restricted visibility; and

3. Reinforce the requirement of the International Regulations for Preventing Collisions at Sea for vessels to proceed at a safe speed appropriate to the prevailing circumstances and conditions, to avoid a collision with any sighted object or disturbance, including any marine mammal.

C. Sightings data must be used when planning propulsion testing event details (*e.g.*, timing, location, duration) to minimize impacts to NARW to the maximum extent practical. During propulsion testing, to the maximum extent practical, Lookouts must be provided recent *https://whalemap.org* sightings data to help inform visual observations.

ix. Rice's Whale Mitigation Area

A. The Navy must not use more than 200 total hours of surface ship hull-mounted mid-frequency active sonar annually within the mitigation area.
B. The Navy must not detonate in-water explosives (including underwater explosives and explosives deployed against surface targets) within the mitigation area, except during mine warfare activities.
C. The Navy must not detonate explosive sonobuoys within 3 nmi (5.6 km) of the mitigation area.
D. The Navy must avoid conducting vessel propulsion testing events in areas that overlap with the Rice's Whale Mitigation Area, to the maximum extent practical.
E. The Navy must issue an annual awareness message to Navy vessels that routinely train or test in the vicinity of the Rice's Whale proposed critical habitat. The message will advise that risk of whale strike is increased when transiting through Rice's whale critical habitat (*i.e.*, within the 100 to 400 m isobaths), particularly at night or during periods of restricted visibility and reinforce the requirement of the International Regulations for Preventing Collisions at Sea for ships to proceed at a safe speed appropriate to the prevailing circumstances and conditions to avoid a collision with any sighted object or disturbance, including any marine mammal.

(d) Cetacean live stranding

In the event of a cetacean live stranding (or near-shore atypical milling) event within the AFTT Study Area or within 50 km (27 nmi) of the boundary of the AFTT Study Area, where the NMFS Stranding Network is engaged in herding or other interventions to return animals to the water, NMFS Office of Protected Resources will advise the Navy of the need to implement shutdown procedures for all active acoustic sources or explosive devices within 50 km of the stranding. Following this initial shutdown, NMFS will communicate with the Navy to determine whether circumstances support modification of the shutdown zone. The Navy may decline to implement all or part of the shutdown if the holder of the LOA, or his/her designee, determines that it is necessary for national security.

Shutdown procedures for live stranding or milling cetaceans include the following:

i. If at any time, the marine mammal(s) die or are euthanized, or if herding/intervention efforts are stopped, NMFS will immediately advise that the shutdown around the animals' location is no longer needed;
ii. Otherwise, shutdown procedures will remain in effect until NMFS determines and advises that all live animals involved have left the area (either of their own volition or following an intervention); and
iii. If further observations of the marine mammals indicate the potential for re-stranding, additional coordination will be required to determine what measures are necessary to minimize that likelihood (*e.g.*, extending the shutdown or moving operations farther away) and to implement those measures as appropriate.

(e) North Atlantic right whale persistence

Within the first year of effectiveness of this LOA, the Navy shall work collaboratively with the NMFS ESA Interagency Cooperation Division and the NMFS Permits and Conservation Division to: 1) analyze and discuss the application of new information from the NMFS North Atlantic Right Whale Persistence Modelling Efforts toward AFTT mitigation measures; 2) evaluate the practicability and conservation benefits of newly proposed mitigation measure and/or changes to existing measures based on information from the model; and 3) implement any new mitigation measures or changes to existing measures that meet the Navy's Practicability Criteria and Sufficiently Beneficial requirements.

7. Monitoring and Reporting

When conducting the specified activities, Navy must implement the following monitoring and reporting requirements.

All reports must be submitted to the Director, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring MD 20910.

(a) Notification of Take

If the Navy reasonably believes that the specified activities resulted in the mortality or serious injury of any marine mammals, or in any Level A harassment or Level B harassment of marine mammals not identified Table 1 through Table 5, then Navy shall notify NMFS immediately or as soon as operational security considerations allow.

(b) Monitoring and reporting under the LOAs

The Navy must conduct all monitoring and reporting required under the LOAs, including abiding by the AFTT Study Area monitoring program. Details on program goals, objectives, project selection process, and current projects are available at *www.navymarinespeciesmonitoring.us.*

(c) Notification of injured, live stranded, or dead marine mammals

The Navy must abide by the Notification and Reporting Plan, attached, which sets out notification, reporting, and other requirements when dead, injured, or live stranded marine mammals are detected.

(d) Changes in Lookout Policies

The Navy must report changes in its policies regarding the number of required Lookouts to NMFS as soon as practicable after a change is made.

(e) Annual AFTT Study Area marine species monitoring report

The Action Proponents (U.S. Coast Guard and Navy, as defined in 50 CFR § 218.80) must submit an annual AFTT Study Area marine species monitoring report describing the implementation and results from the previous calendar year. Data collection methods will be standardized across range complexes and the AFTT Study Area to allow for comparison in different geographic locations. The draft report must be submitted to the Director, Office of Protected Resources, NMFS, annually. NMFS will submit comments or questions on the report, if any, within 3 months of receipt. The report will be considered final after the Action Proponents have addressed NMFS' comments, or 3 months after submittal of the draft if NMFS does not provide comments on the draft report. The report must describe progress of knowledge made with respect to intermediate scientific objectives within the AFTT Study Area associated with the Integrated Comprehensive Monitoring Program (ICMP). Similar study questions must be treated together so that progress on each topic can be summarized across all Navy ranges. The report need not include analyses and content that do not provide direct assessment of cumulative progress on the monitoring plan study questions.

(f) Quick look reports

In the event that the sound levels analyzed in promulgation of the regulations were exceeded within a given reporting year, the Navy must submit a preliminary report detailing the exceedance within 21 days after the anniversary date of issuance of the LOAs.

(g) Annual AFTT Training and Testing Report

Regardless of whether analyzed sound levels were exceeded, the Navy must submit a detailed report (AFTT Annual Training Exercise Report and Testing Activity Report) to the Director, Office of Protected Resources, NMFS annually. NMFS will submit comments or questions on the report, if any, within 1 month of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or 1 month after submittal of the draft if NMFS does not provide comments on the draft report. The annual report must contain a summary of all sound sources used (total hours or quantity (per the LOAs) of each bin of sonar or other non-impulsive source; total annual number of each type of explosive exercises; and total annual expended/detonated rounds (missiles, bombs, sonobuoys, *etc.*) for each explosive bin). The annual report must also contain cumulative sonar and explosive use quantity from previous years' reports through the current year. Additionally, if there were any changes to the sound source allowance in the reporting year, or cumulatively, the report would include a discussion of why the change was made and include analysis to support how the change did or did not affect the analysis in the 2025 AFTT Supplemental EIS/OEIS and MMPA final rule. The

annual report must also include the details regarding specific requirements associated with the mitigation areas listed in measure (7)(g)(iv) of this LOA. The analysis in the detailed report must be based on the accumulation of data from the current year's report and data collected from previous annual reports. The final annual/close-out report at the conclusion of the authorization period (year 7) will also serve as the comprehensive close-out report and include both the final year annual incidental take compared to annual authorized incidental take as well as a cumulative 7-year incidental take compared to 7-year authorized incidental take. The AFTT Annual Training and Testing Report must include the specific information described herein.

i. Major Training Exercises (MTEs)

This section of the Annual AFTT Training and Testing Reports must contain the following information for MTEs completed that year in the AFTT Study Area.

A. Exercise Information (for each MTE).

1. Exercise designator.
2. Date that exercise began and ended.
3. Location.
4. Number and types of active sonar sources used in the exercise.
5. Number and types of passive acoustic sources used in exercise.
6. Number and types of vessels, aircraft, and other platforms participating in each exercise.
7. Total hours of all active sonar source operation.
8. Total hours of each active sonar source bin.
9. Wave height (high, low, and average) during exercise.

B. Individual marine mammal sighting information for each sighting in each exercise where mitigation was implemented.

1. Date, time, location of sighting.
2. Species (if not possible, indication of whale/dolphin/pinniped).
3. Number of individuals.
4. Initial Detection Sensor (*e.g.*, sonar, Lookout).
5. Indication of specific type of platform observation was made from (including, for example, what type of surface vessel or testing platform).
6. Length of time observers maintained visual contact with marine mammal.
7. Sea state.
8. Visibility.
9. Sound source in use at the time of sighting.
10. Indication of whether animal was less than 200 yd, 200 to 500 yd, 500 to 1,000 yd, 1,000 to 2,000 yd, or greater than 2,000 yd from sonar source.
11. Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and the length of delay.
12. If source in use was hull-mounted, true bearing of animal from the vessel, true direction of vessel’s travel, and estimation of animal’s motion relative to vessel (opening, closing, parallel).

13. Lookouts must report the observed behavior of the animal(s) in plain language and without trying to categorize in any way (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming, *etc*.) and if any calves were present.

C. An evaluation (based on data gathered during all of the MTEs) of the effectiveness of mitigation measures designed to minimize the received level to which marine mammals may be exposed. This evaluation must identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

ii. Sinking Exercises (SINKEX)

This section of the report must include the following information for each SINKEX completed that year.

A. Exercise information (gathered for each SINKEX).

1. Location.
2. Date and time exercise began and ended.
3. Total hours of observation by Lookouts before, during, and after exercise.
4. Total number and types of explosive source bins detonated.
5. Number and types of passive acoustic sources used in exercise.
6. Total hours of passive acoustic search time.
7. Number and types of vessels, aircraft, and other platforms participating in exercise.
8. Wave height in feet (high, low, and average) during exercise.
9. Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted.

B. Individual marine mammal observation (by Navy Lookouts) information for each sighting where mitigation was implemented.

1. Date/Time/Location of sighting.
2. Species (if not possible, indicate whale, dolphin, or pinniped).
3. Number of individuals.
4. Initial detection sensor (*e.g.*, sonar or Lookout).
5. Length of time observers maintained visual contact with marine mammal.
6. Sea state.
7. Visibility.
8. Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after.
9. Distance of marine mammal from actual detonations (or target spot if not yet detonated): Less than 200 yd, 200 to 500 yd, 500 to 1,000 yd, 1,000 to 2,000 yd, or greater than 2,000 yd.
10. Lookouts must report the observed behavior of the animal(s), in plain language and without trying to categorize in any way (such as animal

closing to bow ride, paralleling course/speed, floating on surface and not swimming *etc*.), including speed and direction and if any calves were present.

11. The report must indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long. If observation occurred while explosives were detonating in the water, indicate munition type in use at time of marine mammal detection.

iii. Summary of sources used

This section of the report must include the following information summarized from the analyzed sound sources used in all training and testing events:

A. Total annual hours or quantity of each bin of sonar or other acoustic sources (*e.g.*, pile driving and air gun activities); and

B. Total annual expended/detonated ordnance (missiles, bombs, sonobuoys, *etc*.) for each explosive bin.

iv. Special reporting for geographic mitigation areas

This section of the report must contain the following information for activities conducted in geographic mitigation areas in the AFTT Study Area:

A. Northeast North Atlantic Right Whale Mitigation Area

The Navy must report the total annual hours and counts of active sonar and in-water explosives (including underwater explosives and explosives deployed against surface targets) used in the mitigation area.

B. Gulf of Maine Marine Mammal Mitigation Area

The Navy must report the total annual hours and counts of active sonar and in-water explosives (including underwater explosives and explosives deployed against surface targets) used in the mitigation area.

C. Southeast North Atlantic Right Whale Mitigation Area

The Navy must report the total annual hours and counts of active sonar and in-water explosives (including underwater explosives and explosives deployed against surface targets) used in the mitigation area from November 15 to April 15.

D. Southeast North Atlantic Right Whale Special Reporting Mitigation Area

The Navy must report the total annual hours and counts of active sonar and in-water explosives (including underwater explosives and explosives deployed against surface targets) used within the mitigation area from November 15 to April 15.

E. Rice's Whale Mitigation Area

The Navy must report the total annual hours and counts of active sonar and in-water explosives (including underwater explosives and explosives deployed against surface targets) used in the mitigation area.

F. National security requirement

If Navy evokes the national security requirement described in measure (6)(c) of this LOA, the Navy personnel must include information about the event in its Annual AFTT Training and Testing Report.

v. Foreign military sonar and explosives

Navy personnel must confirm that foreign military use of sonar and explosives, when such militaries are participating in a U.S. Navy-led exercise or event, combined with the U.S. Navy's use of sonar and explosives, would not cause exceedance of the analyzed levels within each Navy Acoustic Effects Model modeled sonar and explosive bin used for estimating predicted impacts.

vi. MTE sonar exercise notification

The Navy must submit to NMFS (Director, Office of Protected Resources) an electronic report within 15 calendar days after the completion of any MTE indicating:

A. Location of the exercise;
B. Beginning and end dates of the exercise; and
C. Type of exercise.

(h) Communication plan

The Navy and NMFS shall develop a communication plan that will include all of the communication protocols (phone trees, etc.) and associated contact information required for NMFS and the Navy to carry out the necessary expeditious communication required in the event of a stranding or vessel strike.

8. Modifications to Letter of Authorization

(a) This LOA shall be modified, upon request by Navy, provided that:

i. The specified activities and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for the regulations (excluding changes made pursuant to the adaptive management provision in measure (8)(c)), and
ii. NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA were implemented.

(b) For LOA modification requests by Navy that include changes to the activity or the mitigation, monitoring, or reporting measures (excluding changes made pursuant to the adaptive management provision in measure (8)(c)) that do not change the findings made for the regulations or result in no more than a minor change in the total estimated number of takes (or distribution by species or years), NMFS may publish a notice of proposed modified LOA in the *Federal Register*, including the associated analysis of the change, and solicit public comment before issuing the LOA.

(c) Adaptive management

After consulting with the Navy regarding the practicability of the modifications, NMFS may modify (including adding or removing measures) the existing mitigation, monitoring, or reporting measures if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring.

i. Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA include:

A. Results from the Navy's monitoring from the previous year(s);
B. Results from other marine mammal and/or sound research or studies; or
C. Any information that reveals marine mammals may have been taken in a manner, extent, or number not authorized by the regulations and this LOA.

ii. If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS will publish a notice of planned LOA in the *Federal Register* and solicit public comment.

(d) Emergencies

If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in section 4 (Permissible Methods of Taking), an LOA may be modified without prior notification or opportunity for public comment. Notification would be published in the *Federal Register* within 30 days of the action.

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Kimberly Damon-Randall,
Director, Office of Protected Resources,
National Marine Fisheries Service

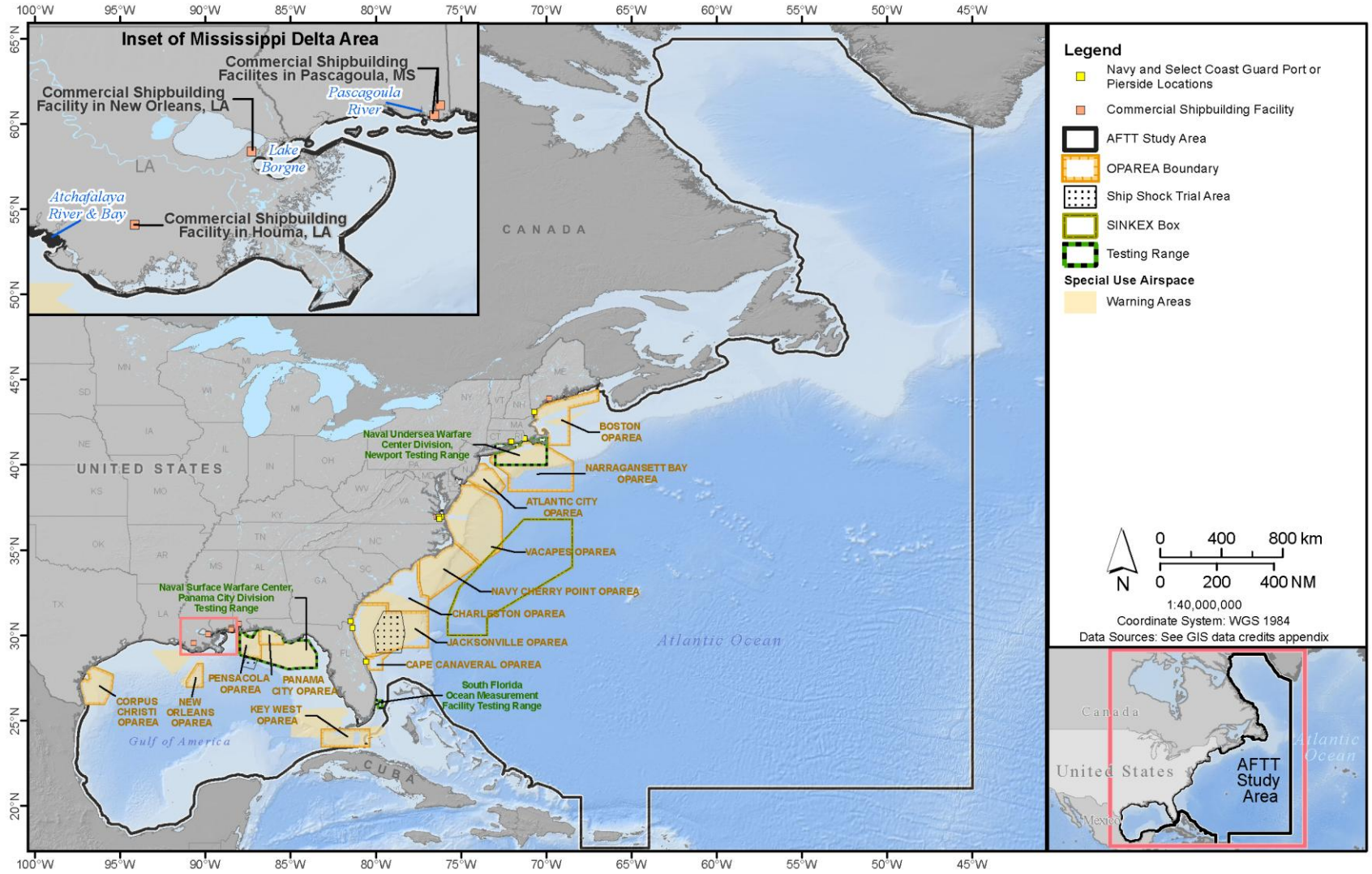

Figure 1. AFTT Study Area.

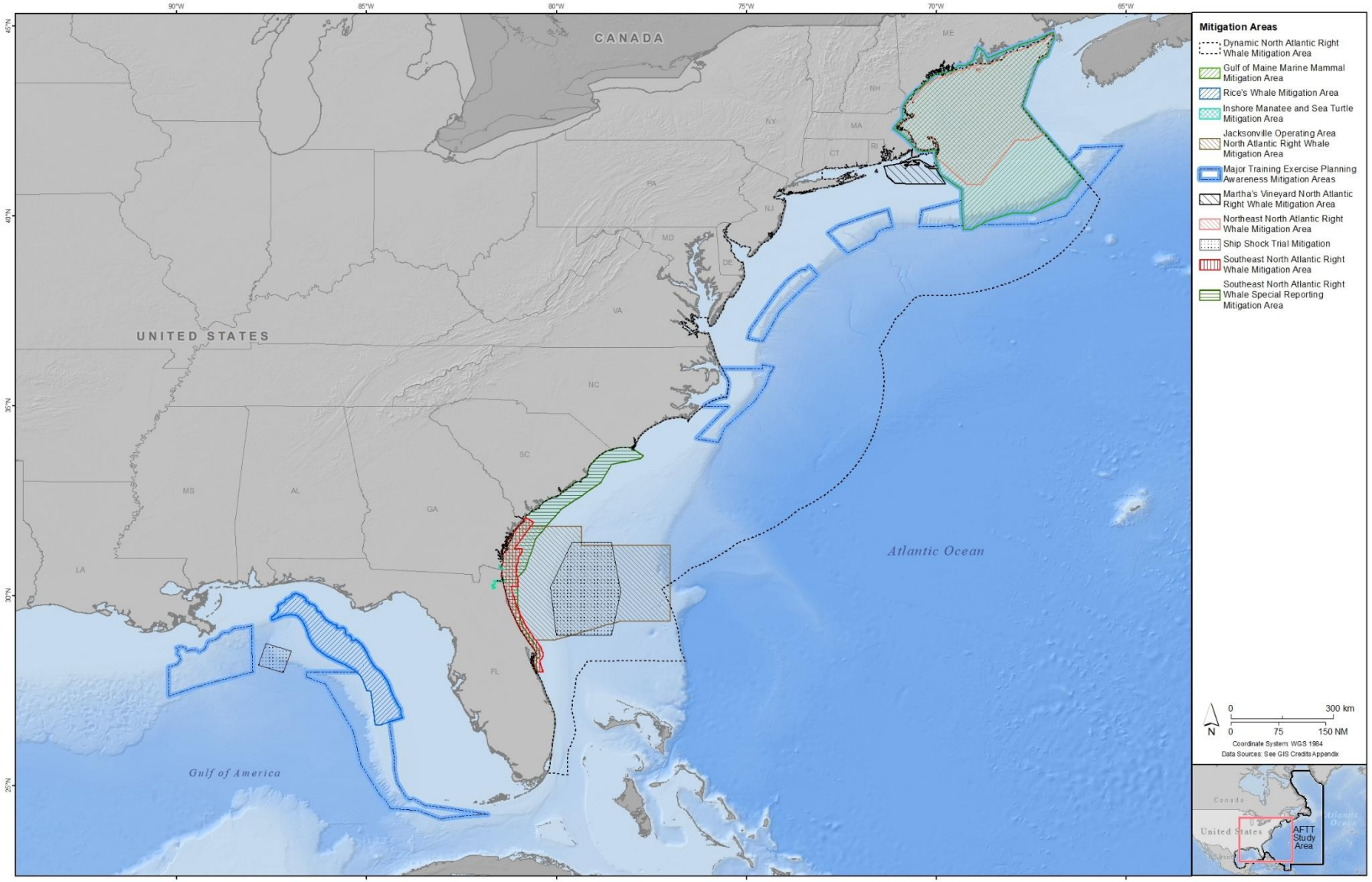

Figure 2. Geographic Mitigation Areas for Marine Mammals in the AFTT Study Area.

NOTIFICATION AND REPORTING PLAN
PHASE IV MILITARY READINESS ACTIVITIES

BACKGROUND

Marine Mammal Protection Act (MMPA) Letters of Authorization (LOAs) indicate the conditions under which the holder (referred to herein as the Action Proponent) is authorized to take marine mammals pursuant to military readiness activities involving sonar, explosive detonations, or vessel movements, conducted in the waters of the Study Area.

This Notification and Reporting Plan is specifically intended to outline the applicable requirements the authorization is conditioned upon in the event that a marine mammal stranding (or near-shore atypical milling) event is reported in or immediately adjacent to (within 50 kilometer (km) (27 nautical miles (nmi) of)) the Study Area (or as specified in the specific regional Communication Plan). Since the National Marine Fisheries Service (NMFS) considers all plausible causes when investigating any injury, death, or stranding, any reporting provided pursuant to this plan does not, in any way, imply that any injuries, deaths, strandings, or milling events are related to, or caused by, Action Proponent training or testing activities. All data provided will undergo appropriate security clearance procedures by the Action Proponent prior to release to NMFS.

COMMUNICATION PROTOCOL

Effective communication is critical to the successful implementation of this Notification and Reporting Plan in the Study Area. Very specific communication protocols, including identification of the Action Proponent personnel authorized to implement a shutdown and the NMFS personnel authorized to advise the Action Proponent of the need to implement shutdown procedures within each NMFS region, have been identified in a study area-specific Communication Plan. These communication protocols are currently in usable form and have been finalized for the Study Area prior to issuance of the LOA(s) and will be updated annually (or more frequently, as appropriate).

REQUIREMENTS

1. Notification of the Discovery of a Stranded Marine Mammal

a. Discovery of any Stranded Marine Mammal[1]

[1] As defined in Title IV of the MMPA, a "stranding" is defined as *"an event in the wild in which (A) a marine mammal is dead and is (i) on a beach or shore of the United States, or (ii) in waters under the jurisdiction of the United States (including any navigable waters) ; or (B) a marine mammal is alive and is (i) on a beach or shore of the United States and unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance."*

In the event that Action Proponent personnel (uniformed military, civilian, or contractors while conducting Action Proponent work) discover a live or dead stranded marine mammal within the Study Area or on Action Proponent property overlapping or adjacent to the Study Area the Action Proponent shall report the incident to the local stranding network as soon as feasible. Reports of stranded pinnipeds on rookeries are exempt from this provision.

In the event that the stranding is a cetacean or ESA-listed pinniped, the Action Proponent shall report the incident to NMFS (see Communication Protocols section of this Notification and Reporting Plan) as well as the local stranding network response organization. For non ESA-listed pinnipeds, the Action Proponent shall report to the local stranding network response organization only.

The Action Proponent will provide NMFS with:

- Date, time, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- Photographs or video footage of the animal(s), if available; and
- General circumstances under which the animal was discovered (*e.g.*, during an explosive event, found on Action Proponent property, or found by transiting vessel).

b. Vessel Strike

Within the boundaries of the Study Area, whether such vessel strike was authorized by the LOA(s) or not, in the event of a vessel strike of a marine mammal by any Action Proponent vessel, the Action Proponent shall immediately report, or as soon as security clearance procedures and safety conditions allow, the information above in (a), to NMFS (see Communication Protocol section of the Notification and Reporting Plan.

As soon as feasible, but no later than seven (7) business days, the Action Proponent shall additionally report to NMFS, the:

- Vessel's speed during and leading up to the incident;
- Vessel's course/heading and what training or testing activity was being conducted (if applicable);
- Status of all sound sources in use (*e.g.*, active sonar, explosives);
- Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike;

- Environmental conditions immediately preceding the strike (*e.g.*, wind speed and direction, Beaufort sea state, cloud cover, visibility);
- Estimated size and length of animal that was struck;
- Description of the behavior of the marine mammal immediately preceding and following the strike;
- Description of the presence and behavior of any other marine mammals immediately preceding the strike, if available;
- Estimated fate of the animal (*e.g.*, dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared, etc.);
- Photographs or video footage of the animal(s) to the extent practicable; and
- Relevant information discovered during Action Proponent's investigation of a vessel strike, including but not limited to other in-water platforms in use within a mile immediately preceding the strike, as available.

2. Additional Information Requests

If NMFS personnel determine that the circumstances of any marine mammal stranding found within the Study Area or within 50 km (27 nmi) of the boundary of the Study Area, suggest investigation of the association of Action Proponent activities is warranted (example circumstances noted below), and an investigation into the stranding is being pursued, NMFS personnel will submit a written request to the Action Proponent asking that they provide the following initial available information as soon as possible, but no later than seven (7) business days after the request for information.

- Status of all permitted sound source and/or explosive use in the 48 hours (hrs) preceding and within 50 km (27 nmi) of the discovery/notification of the stranding by NMFS, or estimated time of stranding; and
- Description of the behavior of any marine mammal(s) sightings preceding (48 hrs and 50 km (27 nmi)) and immediately after the discovery of the stranding (if available)

Examples of circumstances that could trigger the additional information request include, but are not limited to, the following:

- Atypical nearshore milling events of live cetaceans;
- Mass strandings of cetaceans (two or more individuals, not including cow/calf pairs);
- Beaked whale strandings;
- Necropsies with findings of pathologies that are unusual for the species or area; and
- Stranded animals with findings consistent with blast trauma.

In the event that the investigation is still inconclusive, the investigation of the association of Action Proponent activities is still warranted, and the investigation is still being pursued, NMFS may have additional information requests. If the previously mentioned factors are present *(i.e.*, investigation is still inconclusive, *etc.*), the Action Proponent would be required to answer additional questions regarding their activities within 148 km (80 nmi) and 72 hrs prior, provided appropriate security clearance procedures are followed.

3. Actions to Minimize Additional Harm to Live-Stranded (or Near-shore Atypical Milling) Marine Mammals

In the event of a live stranding (or near-shore atypical milling) event within the Study Area or within 50 km (27 nmi) of the boundary of the Study Area, where the stranding network is engaged in herding or other interventions to return animals to the water, NMFS (individuals specifically identified in the study area-specific Communication Plan, NMFS Office of Protected Resources (OPR) – HQ senior administrators) will advise the Action Proponent of the need to implement shutdown procedures for all permitted active acoustic sources or explosive devices within 50 km (27 nmi) of the stranding or near-shore atypical milling event. Following this initial shutdown, NMFS will communicate with the Action Proponent to determine if circumstances support any modification of the shutdown zone. The Action Proponent may decline to implement all or part of the shutdown if the holder of the LOA, or his/her designee, determines that continuation of the military readiness activities are necessary for national security. Shutdown procedures for live stranding or milling marine mammals include the following:

- If at any time, the marine mammal(s) die or are euthanized, or if herding/intervention efforts are stopped, NMFS (individuals specifically identified in the relevant Stranding Communication Protocol) will immediately advise the Action Proponent that the shutdown around the location of the animal(s) is no longer needed.
- Otherwise, shutdown procedures will remain in effect until NMFS (individuals specifically identified in the relevant Stranding Communication Protocol) determines and advises the Action Proponent that all live animals involved have left the area (either of their own volition or following an intervention
- If further observations of the marine mammals indicate the potential for restranding, additional coordination with the Action Proponent will be required to determine what measures are necessary to minimize that likelihood (*e.g.*, extending the shutdown or moving operations farther away) and to implement those measures as appropriate.

Shutdown procedures are not related to the investigation of the cause of the stranding or milling event, and their implementation is not intended to imply that Action Proponent activity is the cause of the stranding. Rather, shutdown procedures are intended to protect marine mammals exhibiting indicators of distress by minimizing their exposure to possible additional stressors, regardless of the factors that contributed to the stranding or milling event.