

**NATIONAL MARINE FISHERIES SERVICE
ENDANGERED SPECIES ACT SECTION 7
BIOLOGICAL AND CONFERENCE OPINION**

Title: Amended Incidental Take Statement for the Biological and Conference Opinion on U.S. Navy Atlantic Fleet Training and Testing and the National Marine Fisheries Service's Promulgation of Regulations Pursuant to the Marine Mammal Protection Act for the Navy to "Take" Marine Mammals Incidental to Atlantic Fleet Training and Testing

Consultation Conducted By: Endangered Species Act Interagency Cooperation Division, Office of Protected Resources, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

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Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

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Approved:



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13 INCIDENTAL TAKE STATEMENT (AMENDED OCTOBER 25, 2019)

[NOTE: To ensure the ITS associated with the October 2018 Biological and Conference Opinion is consistent with NMFS Permits and Conservation Division consideration to issue revised MMPA regulations and new LOAs to account for a two-year extension of the 2018 (existing five-year) AFTT MMPA regulations, we have prepared this amended ITS to cover the seven-year period.]

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. In the case of threatened species, section 4(d) of the ESA leaves it to the Secretary's discretion whether and to what extent to extend the statutory 9(a) "take" prohibitions, and directs the agency to issue regulations it considers necessary and advisable for the conservation of the species.

"Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by regulation to include significant habitat modification or degradation that results in death or injury to ESA-listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. NMFS had not yet defined "harass" under the ESA in regulation, but has issued interim guidance on the term "harass," defining it as to "create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering." We considered NMFS' interim definition of harassment in evaluating whether the proposed activities are likely to result in harassment of ESA-listed species. Incidental take statements serve a number of functions, including providing reinitiation triggers for all anticipated take, providing exemptions from Section 9 liability for prohibited take, and identifying reasonable and prudent measures that will minimize the impact of anticipated incidental take.

When an action will result in incidental take of ESA-listed marine mammals, ESA section 7(b)(4) requires that such taking be authorized under the MMPA section 101(a)(5) before the Secretary can issue an ITS for ESA-listed marine mammals and that an ITS specify those measures that are necessary to comply with Section 101(a)(5) of the MMPA. Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this ITS, including those specified as necessary to comply with the MMPA, Section 101(a)(5). Accordingly, the terms of this ITS and the exemption from Section 9 of the ESA become effective only upon the issuance of MMPA authorization to take the marine mammals identified here. Absent such authorization, this ITS is inoperative for ESA-listed marine mammals. Recall that this consultation analyzed the effects of two actions: 1) the Navy's Phase III AFTT training and testing activities and 2) NMFS Permits Division's promulgation of regulations pursuant to the MMPA for the Navy to "take" marine mammals incidental to AFTT activities. The amount or extent of take of marine mammals described below are applicable to both the Navy and NMFS Permits Division.

At the time of this consultation, take prohibitions have not been extended to the threatened Central and Southwest Atlantic DPS of scalloped hammerhead shark or the threatened species of Caribbean corals. However, consistent with *CBD v. Salazar*, 695 F.3d 893 (9th Cir. 2012), we assessed the amount or extent of take to these threatened species that is anticipated incidental to Navy training and testing activities and include this information in the ITS. Inclusion of these species in the ITS serves to assist the action agency with monitoring of take and provides a trigger for reinitiation if levels of estimated take are exceeded.

13.1 Amount or Extent of Take

Section 7 regulations require NMFS to specify the impact of any incidental take of endangered or threatened species; that is, the amount or extent, of such incidental taking on the species (50 C.F.R. §402.14(i)(1)(i)). The amount of take represents the number of individuals that are expected to be taken by actions. Where it is not practical to quantify the number of individuals that are expected to be taken by the action, a surrogate (e.g., similarly affected species or habitat or ecological conditions) may be used to express the amount or extent of anticipated take.

The following tables list the anticipated take from training and testing activities by species and the interrelated and interdependent actions of issuance of a seven-year regulation¹ and LOAs by NMFS' Permits Division to authorize take of marine mammals pursuant to the MMPA.

¹ On November 14, 2018, NMFS issued a five-year final rule governing the taking of marine mammals incidental to Navy training and testing activities conducted in the AFTT Study Area (83 FR 57076; hereafter “2018 AFTT final rule”). Previously on August 13, 2018, and towards the end of the time period in which NMFS was processing the Navy’s request for the 2018 regulations, the 2019 NDAA amended the MMPA for military readiness activities to allow incidental take regulations to be issued for up to seven years instead of the previous five years. On May 13, 2019 NMFS issued a proposed seven-year rule and associated Letters of Authorization (LOAs) to cover the same activities covered by the 2018 AFTT regulations (84 FR 21126).

Table 1. The number of lethal and non-lethal takes of threatened and endangered marine mammals, sea turtles, and fish likely to occur annually (except in the case of mortality from ship strike) as a result of the proposed Navy training and testing activities in the action area.

ESA-Listed Species	Impulsive and Non-Impulsive Acoustic Stressors				Vessel Strike	
	Harassment (TTS/Behavioral)	Harm (PTS)	Harm (Slight Lung Injury)	Mortality	Mortality ¹ (over every 7 year period)	Harm (non-lethal injuries)
Cetaceans						
North Atlantic Right Whale	266 / 203	-	-	-	-	-
Blue Whale	34 / 12	-	-	-	-	-
Bryde's Whale – Gulf of Mexico subspecies ¹	28 / 24	-	-	-	-	-
Fin Whale	3,437 / 1,716	6	-	-	1	-
Sei Whale	529 / 245	-	-	-	1	-
Sperm Whale	682 / 25,810	-	-	-	1	-
Sea Turtles						
Green – North Atlantic DPS	40/5,076	6	-	-	77	4
Hawksbill	313/24	-	-	-	-	4
Kemp's ridley	28/6,660	5			28	5
Loggerhead	772/46,178	80	17	2	105	11
Leatherback	348/3,299	22	2	-	7	3

ESA-Listed Species	Impulsive and Non-Impulsive Acoustic Stressors				Vessel Strike	
	Harassment (TTS/Behavioral)	Harm (PTS)	Harm (Slight Lung Injury)	Mortality	Mortality ¹ (over every 7 year period)	Harm (non-lethal injuries)
Fishes						
Atlantic Sturgeon – Gulf of Maine DPS Atlantic Sturgeon – New York Bight DPS Atlantic Sturgeon – Chesapeake Bay DPS Atlantic Sturgeon – Carolina DPS Atlantic Sturgeon – South Atlantic DPS	<i>See paragraph below regarding the extent of take of ESA-listed fish from the proposed action</i>				No more than 6 across all DPSs combined No more than 1 each from Gulf of Maine DPS, New York Bight DPS, and South Atlantic DPS	-
Gulf sturgeon	<i>See paragraph below regarding the extent of take of ESA-listed fish from the proposed action</i>				1	-

¹Numbers presented represent total exempted over every seven-year period. In the effects analyses for this biological opinion (Section 9.2), we estimated the annual number of lethal takes by vessel strike and multiplied by five for the total over a five-year period. In this table, annual estimates of lethal take from our effects analysis have been multiplied by seven to align with the extension of the MMPA rule from five to seven years. Estimated lethal vessel strike numbers for Atlantic and Gulf sturgeon did not change because both calculations (i.e., five year and seven years) rounded up to the same whole number.

²Gulf of Mexico Bryde’s whale was proposed for listing at the time this biological opinion was completed. On April 15, 2019 NMFS published a final rule to list this species as endangered under the ESA (effective date May 15, 2019).

Table 2. The number of lethal and non-lethal takes of threatened and endangered marine mammals and sea turtles likely to occur as a result of exposure to small ship shock trials conducted in the action area (i.e., up to three small ship shock trials could occur every seven years).

ESA-Listed Species	Small Ship Shock Trials			
	Harassment (TTS)	Harm (PTS)	Harm (Slight Lung Injury)	Mortality
Marine Mammals				
North Atlantic Right Whale	3	-	-	-
Blue Whale	-	-	-	-
Bryde's Whale – Gulf of Mexico subspecies ¹	-	-	-	-
Fin Whale	393	9	-	-
Sei Whale	36	3	-	-
Sperm Whale	3	3	-	-
Sea Turtles				
Green – North Atlantic DPS	18	1	-	-
Hawksbill	2	-	-	-
Kemp's ridley	12	1	1	-
Loggerhead	339	19	5	1
Leatherback	169	7	1	-

¹Gulf of Mexico Bryde's whale was proposed for listing at the time this biological opinion was completed. On April 15, 2019 NMFS published a final rule to list this species as endangered under the ESA (effective date May 15, 2019).

Table 3. The number of lethal and non-lethal takes of threatened and endangered marine mammals and sea turtles that are likely to occur as result of exposure to a large ship shock trial conducted once every seven years in the action area.

ESA-Listed Species	Large Ship Shock Trial			
	Harassment (TTS)	Harm (PTS)	Harm (Slight Lung Injury)	Mortality
Marine Mammals				
North Atlantic Right Whale	2	-	-	-
Blue Whale	1	-	-	-
Bryde’s Whale – Gulf of Mexico subspecies ¹	3	1	-	-
Fin Whale	234	27	-	-
Sei Whale	27	4	-	-
Sperm Whale	3	3	1	-
Sea Turtles				
Green – North Atlantic DPS	18	1	-	-
Hawksbill	2	1	-	-
Kemp’s ridley	15	1	1	-
Loggerhead	283	13	4	1
Leatherback	215	7	2	-
<i>¹Gulf of Mexico Bryde’s whale was proposed for listing at the time this biological opinion was completed. On April 15, 2019 NMFS published a final rule to list this species as endangered under the ESA (effective date May 15, 2019).</i>				

When it is not possible or practicable to specify the amount or extent of take, a surrogate may be used if we: describe the causal link between the surrogate and take of the listed species, explain why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed species, and set a clear standard for determining when the level of anticipated take has been exceeded. 50 C.F.R. 402.14(g)(7)(i). As described previously in Section 9.2.3, for the proposed action, it is not possible, nor would it be an accurate representation of potential effects, to express the amount of anticipated take of ESA-listed fish species or to monitor take-related impacts in terms of individuals of these species due to the lack of data on fish density and abundance in the action area. Therefore, the surrogate for incidental take of ESA-listed fishes is expressed as a distance to reach effects in the water column that correlates with injury and sub-injury from acoustic stressors in those areas occupied by fishes. In other cases, as with vessel strikes we provide relative percentage of potential take for Atlantic sturgeon DPSs in relation to Navy vessel traffic occurrence within the action area (See Table 1).

As described previously in Section 9.2.4, for the proposed action, it is not possible, nor would it be an accurate representation of likely effects, to express the amount of anticipated take of ESA-listed corals as numbers of colonies, or to monitor take-related impacts in terms of individual colonies of these species. Therefore, the incidental take of ESA-listed corals is expressed as a habitat area surrogate as prescribed by 50 CFR 402.14(i). Anticipated take of ESA-listed corals is 0.00003 km² of habitat annually that may be occupied by live hard coral cover, a subset of which would be occupied by ESA-listed corals. This area of live coral cover is likely to be vulnerable to impacts from military expended materials used during training and testing activities.

Activity Levels as Indicators of Take for Marine Mammals and Sea Turtles

As discussed in this opinion, the estimated take of ESA-listed sea turtles and marine mammals from acoustic stressors is based on Navy modeling, which represents the best available means of numerically quantifying take. As the level of modeled sonar or explosive use increases, the level of take is likely to increase as well. For non-lethal take from acoustic sources specified above, feasible monitoring techniques for detecting and calculating actual take at the scale of AFTT activities do not exist. We are not aware of any other feasible or available means of determining when estimated take levels may be exceeded. Therefore, we must rely on Navy modeling, and the link between sonar or explosive use and the level of take, to determine when anticipated take levels have been exceeded. As such, we established a term and condition of this Incidental Take Statement that requires the Navy to report to NMFS any exceedance of activity specified in the preceding opinion and in the final MMPA rule before the exceedance occurs if operational security considerations allow, or as soon as operational security considerations allow after the relevant activity is conducted. Exceedance of an activity level will require the Navy to reinitiate consultation.

13.2 Effects of the Take

In this opinion, NMFS determined that the amount or extent of anticipated take, coupled with other effects of the proposed action, is not likely to jeopardize the continued existence or recovery of any ESA-listed species or result in the destruction or adverse modification of designated critical habitat.

13.3 Reasonable and Prudent Measures

Section 7(b)(4) of the ESA requires that when a proposed agency action is found to be consistent with section 7(a)(2) of the ESA and the proposed action may incidentally take individuals of ESA-listed species, NMFS will issue a statement that specifies the impact of any incidental taking of endangered or threatened species. To minimize such impacts, reasonable and prudent measures, and term and conditions to implement the measures, must be provided. Only incidental take resulting from the agency actions and any specified reasonable and prudent measures and terms and conditions identified in the ITS are exempt from the taking prohibition of section 9(a), pursuant to section 7(o) of the ESA.

Reasonable and prudent measures are nondiscretionary measures to minimize the amount or extent of incidental take (50 C.F.R. §402.02). The reasonable and prudent measures and terms and conditions are specified as required by 50 CFR 402.12 (i)(1)(ii) and (iv) to document the incidental take by the proposed action and minimize the impact of that take on ESA-listed species. The reasonable and prudent measures are nondiscretionary, and must be undertaken by the Navy and NMFS' Permits Division so that they become binding conditions for the exemption in section 7(o)(2) to apply.

NMFS has determined the following reasonable and prudent measures are necessary and appropriate to minimize the impacts of incidental take of threatened and endangered species during the proposed action:

1. The Navy and NMFS Permits Division shall minimize effects to ESA-listed marine mammals, sea turtles, and fishes from the use of active sonar and other transducers, explosives, and vessels. This includes adherence to the mitigation measures specified in the final MMPA rule and LOA.
2. The Navy and NMFS Permits Division shall monitor and report to NMFS Office of Protected Resources ESA Interagency Cooperation Division on impacts to ESA-listed marine mammals, sea turtles, and fishes from the use of sonar and other transducers, explosives, and vessels. This includes adherence to the monitoring and reporting measures specified in the final MMPA rule and LOA.
3. The Navy shall monitor effects to coral reef habitat at the KWRC from the use of military expended materials and report to NMFS' Office of Protected Resources ESA Interagency Cooperation Division on impacts to ESA-listed corals observed.

13.4 Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the Navy and NMFS Permits Division must comply with the following terms and conditions, which implement the reasonable and prudent measures above. These include the take minimization, monitoring and reporting measures required by the section 7 regulations (50 C.F.R. §402.14(i)). These terms and conditions are non-discretionary. If the Navy or NMFS Permits Division fail to ensure compliance with these terms and conditions and their implementing reasonable and prudent measures, the protective coverage of section 7(o)(2) may lapse.

- 1) The following terms and conditions implement reasonable and prudent measure 1:
 - a) The Navy shall implement all mitigation measures as specified in the final MMPA rule and LOA, and as described in this opinion in Section 3.4.2.
 - b) NMFS' Permits Division shall ensure that all mitigation measures as prescribed in the final rule and LOA, and as described in Section 3.4.2 of this opinion are implemented by the U.S. Navy.
 - c) The Navy shall continue technical assistance/adaptive management efforts with NMFS to help inform future consultations on Navy training and testing in the action area. Adaptive management discussions should include review of Navy's exercise and monitoring reports, review of ESA section 7 reinitiation triggers (described in Section 15), and potential new measures to increase mitigation effectiveness (e.g., thermal detection of protected species)
- 2) The following terms and conditions implement reasonable and prudent measure 2:
 - a) The Navy shall monitor training and testing activities and submit reports annually to NMFS Permits Division and NMFS ESA Interagency Cooperation Division including the location and total hours and counts of active sonar hours and in-water explosives used, and an assessment if activities conducted in the action area exceeded levels of training and testing analyzed in this opinion annually and over the seven-year period of the MMPA regulations and LOAs.
 - b) NMFS Permits Division shall review the reports submitted by the Navy described above in 2(a). Within two months of receipt of each Navy report, NMFS Permits Division will submit written documentation to NMFS ESA Interagency Cooperation Division assessing if Navy activities conducted in the action area exceeded levels of training and testing analyzed in this opinion annually and over the seven-year period of the MMPA regulations and LOAs.
 - c) The Navy and NMFS Permits Division shall monitor and provide annual reports to NMFS Permits Division and NMFS ESA Interagency Cooperation Division on the total hours and counts of active sonar and in-water explosives used in the southeast North

- Atlantic right whale critical habitat from 15 November to 15 April, and in the northeast North Atlantic right whale critical habitat year-round, to ensure activity levels and the nature of activities conducted in these areas are consistent with those analyzed in this biological opinion.
- d) NMFS Permits Division shall review the report submitted by the Navy described above in 2(c). Within two months of receipt of each Navy report, NMFS Permits Division will submit written documentation to NMFS ESA Interagency Cooperation Division assessing if activity levels and the nature of activities conducted in the southeast North Atlantic right whale critical habitat from 15 November to 15 April, and in the northeast North Atlantic right whale critical habitat year-round are consistent with those analyzed in this biological opinion.
 - e) The Navy and NMFS Permits Division shall report to the NMFS ESA Interagency Cooperation Division all observed injury or mortality of any ESA-listed species resulting from the proposed training and testing activities within the action area. The Navy shall report when enough data are available to determine if the dead or seriously injured ESA-listed species may be attributable to these activities, including but not limited to, the use of explosives and vessel strike.
 - f) In the event that Navy personnel (uniformed military, civilian, or contractors while conducting Navy work) discover a live or dead stranded marine mammal or sea turtle within the action area or on Navy property, the Navy shall report the incident to NMFS immediately or as soon as operational security considerations allow.
 - g) If NMFS personnel determine that the circumstances of any of the strandings reported in 2(f) suggest investigation of the associated of Navy activities is warranted (see stranding and notification document for example circumstances), and an investigation into the stranding is being pursued, NMFS personnel will submit a written request to the Navy asking that they provide the status of all sound source and explosive use in the 48 hours preceding and within 50 km (27 NM) of the discovery/notification of the stranding by NMFS, or estimated time of stranding. Navy will submit this information as soon as possible, but no later than seven business days after the request.
- 3) The following terms and conditions implement reasonable and prudent measure 3. The goal of these terms and conditions is to improve identification and analysis of marine debris to determine what component military expended material constitutes the overall amount of debris in the marine environment.
- a) The Navy shall develop a plan, in cooperation with NMFS ESA Interagency Cooperation Division, to coordinate with relevant entities (e.g., National Marine Sanctuaries Program, NOAA Marine Debris program, relevant coral researchers) conducting underwater surveys in or near the KWRC. This plan shall be developed to identify and evaluate the extent to which debris of military origin (i.e., military expended materials) may have

impacted ESA-listed corals and designated coral critical habitat. The coordination and evaluation plan should include the following:

- b) The Navy will compile existing surface and bottom current data to estimate the most likely patterns of movement of military expended materials from training and testing activities in the KWRC. The Navy will use those estimates to identify a prioritized list of seafloor areas where the potential military expended material movement patterns are most likely to overlap ESA-listed coral and coral critical habitat. This will be based on existing best available mapping data in or near KWRC where ESA-listed corals and their habitat are thought to occur. The Navy will evaluate existing research/data to determine if military expended materials have been documented in those areas and whether any impacts to ESA-listed coral or designated critical habitat from those materials have occurred.
- c) The Navy will work with entities already conducting underwater surveys in or near the KWRC to incorporate searches for potential military expended materials in future scheduled surveys to determine if there are any observed impacts on ESA-listed corals or designated coral critical habitat from those materials. The Navy should make available information on the identification of military expended materials to assist researchers in determining whether debris encountered during past and future underwater surveys, if any, could be of military origin.
- d) Within 30 days of completion the first year of the proposed action, the Navy will provide a report to NMFS ESA Interagency Cooperation Division on the status of the Navy's effort to evaluate existing data to determine whether there is past evidence of military expended materials impacting ESA-listed coral or designated coral critical habitat. In year three, the Navy will then provide a report, and every two years after, as part of the annual monitoring report on the status of this work, to include a summary of information on the extent to which military expended materials, if any, has been encountered and if there were any observed impacts on ESA-listed corals or designated coral critical habitat from those materials. After five years, based on existing findings, the Navy and NMFS will re-evaluate if any impacts have been observed and the future utility for requiring this Term and Condition.