



To All Interested Government Agencies and Public Groups

Under the National Environmental Policy Act (NEPA), an environmental review has been performed on the following action.

TITLE: Supplemental Environmental Assessment on the Effects of Issuing an Amendment to Scientific Research Permit No. 16109-01 for Protected Sea Turtles and Marine Mammals

LOCATION: Atlantic Ocean

SUMMARY: The proposed action is issuance of an amendment to scientific research permit No. 16109-01 for takes of marine mammals and sea turtles during vessel and aerial surveys, behavioral observations, photo-identification, photography and videography. The purposes of the research are to assess the presence, distribution, abundance, behavior, and migration of cetaceans, pinnipeds, and sea turtles in the Atlantic Ocean. Impacts from these activities would be short-term and minimal to individual animals and negligible to the species. A biological opinion concluded that the proposed action would not likely jeopardize the continued existence of the species and would not likely destroy or adversely modify designated critical habitat. The permit is valid until May 15, 2017.

RESPONSIBLE OFFICIAL: Donna S. Wieting
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The environmental review process led us to conclude that this action will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared. A copy of the finding of no significant impact (FONSI) including the supporting environmental assessment (EA) is enclosed for your information.

Although NOAA is not soliciting comments on this completed EA/FONSI we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the responsible official named above.



Sincerely,

**TRONVIG.KRISTEN.
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Enclosure



**Supplemental Environmental Assessment
on the
Effects of Issuing an Amendment to Scientific Research Permit No. 16109-01 for Protected Sea
Turtles and Marine Mammals**

December 2015

Lead Agency: USDOC National Oceanic and Atmospheric Administration
National Marine Fisheries Service,
Office of Protected Resources

Responsible Official: Donna S. Wieting, Director
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Location: Atlantic Ocean (Maine to Florida)

Abstract: The National Marine Fisheries Service (NMFS) proposes to issue a major amendment to Scientific Research Permit No. 16109-01 for takes of marine mammals and sea turtles in the wild, pursuant to the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*) and the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*). Permit No. 16109-01 authorizes harassment during close approach via vessel for photo-identification, behavioral observations, and incidental harassment of marine mammals and sea turtles from New Jersey to North Carolina. The proposed permit amendment would:

- (1) extend the action area to include all U.S. waters from Maine to Florida to the to the limit of the Exclusive Economic Zone;
- (2) authorize harassment during aerial surveys;
- (3) change the frequency of vessel-based surveys currently authorized from once per season to twice a month, year-round;
- (4) increase take numbers of currently authorized marine mammals and sea turtles; and
- (5) add six species [i.e., Blainville's beaked whale (*Mesoplodon densirostris*), false killer whales (*Pseudorca crassidens*), hawksbill (*Eretmochelys imbricata*), loggerhead (*Caretta caretta*), Kemp's ridley (*Lepidochelys kempii*), and green (*Chelonia mydas*) sea turtles].

The requested changes would allow Versar, Inc. (formerly GeoMarine, Inc.) to collect the necessary data for generating abundance/density estimates for sea turtles and marine mammals. The amended permit would expire on May 15, 2017.



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1.0 PURPOSE AND NEED

1.1 Introduction

The National Marine Fisheries Service (NMFS) proposes to issue a major amendment to Scientific Research Permit No. 16109-01 for takes of marine mammals and sea turtles in the wild, pursuant to the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*) and the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*). The amended scientific research permit updates the Permit Holder information and includes the following modifications to data collection efforts necessary for obtaining and generating abundance and density estimates for sea turtles and other marine mammals:

- Extending the action area to include all U.S. waters from Maine to Florida up to the limit of the Exclusive Economic Zone along the 30 meter (m) isobaths;
- Authorize harassment during aerial surveys;
- Change the frequency of vessel-based surveys currently authorized from once per season to twice a month, year-round;
- Increase take numbers currently authorized for marine mammals and sea turtles; and
- Add six species [i.e., Blainville's beaked whale (*Mesoplodon densirostris*), false killer whales (*Pseudorca crassidens*), hawksbill (*Eretmochelys imbricata*), loggerhead (*Caretta caretta*), Kemp's ridley (*Lepidochelys kempii*), and green (*Chelonia mydas*) sea turtles].

1.2 Background

Scientific Research Permit No. 16109-00 was originally issued to GeoMarine, Inc. [Responsible Party: Jason Holt See] on May 4, 2012, with an expiration date of May 15, 2017.

This permit authorized harassment of marine mammals and sea turtles from New Jersey to North Carolina during close approach via vessel to conduct surveys, photo-identification, behavioral observations, photography, and videography. The objectives were to elucidate the distribution and abundance of 35 species of cetaceans, four species of pinnipeds and two species of sea turtles (see Appendix 1 of the 2012 EA for original take numbers).

The research area approved was along the 30 meter (m) isobath since this is the depth limit for the wind turbines which are planned for development along the east coast. The width of the action area ranged from 19 to 36 NM offshore from New Jersey to North Carolina. The surveys were authorized to be conducted once per season to maximize survey time during known migration periods: July (summer survey), November (fall survey), February (winter survey), April (spring survey). Each survey was anticipated to take approximately eight days to complete depending on the hours of available daylight. The application contained standard terms and conditions such as:

- Surveys would be conducted at ~10 knots along random tracklines in a saw-tooth pattern from the University of Delaware's R/V Sharp (146 ft) to collect data for estimating abundance of cetaceans
- Visual observations will be recorded from the flying bridge (10 m [32.81 ft] above water) during daylight hours. The vessel would remain in passing mode if species identification and

group estimates can be obtained while remaining on the trackline. If necessary, the vessel would veer off the trackline to approach the individual or group (closing mode) to obtain this information.

- A minimum approach distance of 50 yards would be maintained for all protected species, except endangered whales which would have a minimum approach distance of 100 yards unless not practicable. The duration of observations would be limited to 30 minutes.
- Approaches are limited to once per day for an individual if they are able to confirm the identity of the individual.
- Approaches would be made at less than 10 knots and would parallel the course and speed of the animals. Some animals or species listed in the take table may be incidentally harassed when approaching other species for behavioral observations.

Permit No. 16109-00 was amended to update the Responsible Party information and issued on May 14, 2012 [Responsible Party: Suzanne Bates]. The permit was subsequently amended to increase takes of sei whales. There were no changes to the methods, location, and duration of the scientific research activities and no changes to the original permit terms and conditions. The amended permit (No. 16109-01) replaced permit 16109-00 and was issued on July 9, 2012.

1.3 Purpose and Need

NMFS has a statutory responsibility to protect, conserve, and recover marine mammals and threatened and endangered species under its jurisdiction. This includes the responsibility to issue and enforce permits to authorize directed take¹ by harassment² of marine mammals and sea turtles in the wild. As applicable, permits are issued pursuant to the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*); the regulations governing the taking and importing of marine mammals (50 CFR Part 216); the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*); and the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR Parts 222-226). These laws and regulations prohibit takes of marine mammals and threatened and endangered species, respectively, with only a few specific exceptions, including for bona fide³ scientific research and enhancement. In addition, issuance of these permits are dependent on criteria to ensure all scientific research and enhancement activities are consistent with the purposes and policies of these federal laws and regulations and would not have a significant, adverse impact on the target species or stock.

¹ Under the MMPA, "take" is defined as "harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect." [16 U.S.C. 1362(18)(A)] The ESA defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The term "harm" is further defined by regulations (50 CFR §222.102) as "an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including breeding, spawning, rearing, migrating, feeding, or sheltering."

² "Harass" is defined by MMPA regulation (50 CFR §216.3) as "Any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing a disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering but does not have the potential to injure a marine mammal or marine mammal stock in the wild (Level B harassment)."

³ The MMPA defines bona fide research as "scientific research on marine mammals, the results of which – (A) likely would be accepted for publication in a refereed scientific journal; (B) are likely to contribute to the basic knowledge of marine mammal biology or ecology; or (C) are likely to identify, evaluate, or resolve conservation problems."

1.3.1 Purpose

The primary purpose of our proposed action—the issuance of an amendment to scientific research Permit No. 1610-01 to Versar, Inc.—is to exempt the Permit Holder from the take prohibitions under the MMPA and ESA for harassment of marine mammals and sea turtles, including those listed as endangered, during conduct of research that is consistent with the MMPA and ESA issuance criteria.

1.3.2 Need

The need for issuance of this permit is related to the purposes and policies of the MMPA and ESA. NMFS has a responsibility to implement both the MMPA and the ESA to protect, conserve, and recover marine mammals and threatened and endangered species under its jurisdiction. Facilitating research about species' basic biology and ecology or that identifies, evaluates, or resolves specific conservation problems informs NMFS management of protected species.

The Permit Holder needs to amend their permit because they want to modify their research protocols in a manner that would result in additional harassment of marine mammals and sea turtles already permitted (Permit No. 16109-01) and harassment of previously unauthorized species, and in a larger study area. Versar, Inc. wants to collect data necessary for generating abundance/density estimates for sea turtles and marine mammals, related to potential offshore wind development along the U.S. east coast. To meet this objective they want to modify their permit in the manner mentioned above.

Scope of Environmental Assessment: Our issuance of an amended scientific research permit is a major federal action under the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations in 40 CFR §§ 1500-1508, and NOAA Administrative Order (NAO) 216-6. Thus, we are required to analyze the effects of our proposed action. This Supplemental Environmental Assessment (SEA) focuses on evaluating whether permitting additional harassment of marine mammals and sea turtles as proposed in the amendment request, would change the manner in which the action may affect the environment compared to the effects documented and analyzed in the 2012 EA prepared for issuance of the original permit.

The original analysis, *Final Environmental Assessment on Effects of Issuing Two Scientific Research Permits, No. 16109 and No. 15575, for Protected Sea Turtles and Marine Mammals* (NMFS 2012a), considered the effects of permit issuance on a variety of marine mammals and sea turtles, and on physical and biological features of the action area. The proposed action, which was the preferred alternative, was issuance of the permit with the terms and conditions that are standard to permits issued by NMFS for harassment of marine mammals and sea turtles.

The 2012 EA summarized the status of the affected species, including seasonal occurrence, population abundance and density, annual productivity. It then evaluated the effects of the research activities themselves, including effects of the potential for stress associated with the close approach of vessels and aircrafts. The analysis also considered the effects on stocks of the harassment that could result from the research activities. In addition, NMFS considered the effects of the harassment on threatened and endangered marine mammal and sea turtle species during consultation under section 7 of the ESA. The results of that consultation were summarized in a Biological Opinion (BO), the conclusions of which were incorporated into the final 2012 EA.

As noted in the FONSI signed on May 1, 2012, and based on the analyses in the 2012 EA (and associated BO), issuance of the permit would result in minor short-term adverse effects on a specified number of animals targeted by the research, as well as non-target animals in the immediate vicinity of the research, but would not affect other aspects of the human environment. NMFS further concluded that, given the mitigation measures required by the permit, the adverse effects on marine mammals and sea turtles would be transitory and recoverable changes in behavior and physiology. Those changes are not expected to result in measurable effects on populations, stocks, or species.

The 2012 EA considered the effects of other human activities affecting marine mammals and sea turtles in the action area, including entrapment and entanglement in fishing gear, vessel interactions, habitat degradation, anthropogenic noise, and other permits issued by NMFS for research on the same species and stocks. NMFS concluded that issuance of the permit would not result in individually or cumulatively significant impacts.

There is no evidence from prior analyses⁴ of the effects of permit issuance, or from monitoring reports submitted by permit holders,⁵ that issuance of research permits for take of marine mammals and sea turtles results in adverse impacts on stocks or species. Nevertheless, NMFS prepared the 2012 EA and this SEA, with a more detailed analysis of the potential for adverse impacts on threatened or endangered species resulting from takes of a specified number of individuals to assist in making the decision about permit issuance under the MMPA and ESA.

The 2012 EA demonstrated that issuance of the permit for harassment of marine mammals and sea turtles would not affect any component of the environment other than the animals themselves. The proposed permit amendment involves harassment of the same species of marine mammals and sea turtles, as the proposed action in the 2012 EA with the addition of several sea turtle species and unidentifiable marine mammal species categories. This SEA incorporates by reference sections of the 2012 EA, where applicable, as noted in this document. The analysis in this SEA is limited to effects on marine mammals and sea turtles for new take not previously included in the 2012 EA.

NMFS published a *Federal Register* notice of receipt (79 FR 8159) to allow other agencies and the public the opportunity to review and comment on the action. No comments were received.

An accompanying BO (NMFS 2015) was prepared for this action (Permit No. 16109-02), which concluded that Permit No. 16109-02 would not jeopardize any endangered species or destroy or modify any critical habitat.

⁴ Since 2005, NMFS has prepared over 100 EAs for issuance of permits under the MMPA and ESA. In every case, the EA supported a finding of no significant impact regardless of the nature of the permitted take or the status of the species that were the subject of the permit. These EAs were accompanied by Biological Opinions prepared pursuant to interagency consultation under section 7 of the ESA and further document that such permits are not likely to adversely affect listed species.

⁵ All NMFS permits for research on marine mammals and sea turtles require submission of annual reports, which include information on responses of animals to the permitted takes.

2.0 PROPOSED ACTION AND ALTERNATIVES

Alternative 1 - No Action (Status Quo): Under the No Action alternative, the permit amendment would not be issued to the Permit Holder for the activities proposed. In absence of such amendment, the existing permit (No. 16109-01) would remain in effect until it expires on May 15, 2017, allowing takes of marine mammals and sea turtles, including ESA-listed species, by harassment during close approach via vessel for photo-identification, photography and videography, behavioral observation, and incidental harassment in waters from 19 to 36 NM offshore from New Jersey to North Carolina along the 30 m isobath. No other permits or permit requests would be affected by this alternative.

Alternative 2 (Preferred alternative) - Proposed Action (Issuance of Amended Permit with Standard Conditions): Under this alternative, an amended permit (No. 16109-02) would be issued that continues to authorize the Permit Holder to harass marine mammals and sea turtles along the U.S. east coast. All currently authorized research activities would occur as previously described and analyzed in the 2012 EA. The permit would still expire on May 15, 2017. However the permit would be modified as explained below. Appendix 1 includes the proposed amended take table, the changes requested appear in bold.

Action Area: The amendment would extend the action area to include all U.S. waters from Maine to Florida to the limit of the Exclusive Economic Zone along the 30 m isobath.

Methods: The research protocol would:

- add (authorize) harassment during aerial surveys to the already authorized vessel surveys, photo-identification, observation and close approach; and
- increase the frequency of vessel-based surveys from once per season to twice a month, year-round.

Aerial Surveys

Level B harassment of marine mammals and sea turtles would occur primarily from aerial surveys which would be flown no more than twice monthly using a twin-engine Cessna Skymaster or comparable aircraft and two experienced pilots. Aerial surveys would be flown at ~229 m (750 ft) altitude and a speed of ~220 kilometers per hour (kph; 110 knots [kts]) during daylight hours when there is at least 3.7 km (2 NM) visibility and a Beaufort sea state of less than 6. Circle-back procedures would only be conducted if confirmation of species identification or estimate group sizes from the first pass over the animal(s) cannot occur. The average amount of time circling the animal(s) would be 10-15 min and would not exceed 30 min.

Disturbance to animals would be minimized during aerial surveys by:

- Limiting circling to the minimum time necessary to achieve objectives.
- Terminating activities if avoidance behavior is observed.
- Avoiding over flights of pinniped haul outs.
- Avoiding known pinniped rookeries.

Frequency of Vessel-Based Surveys

Vessel surveys would occur up to twice a month, year-round rather than once per season to maximize survey time during known migration periods. Each survey is anticipated to take approximately eight days to complete depending on the hours of available daylight. This would allow Versar, Inc. to have a better understanding of abundance and distribution of the species throughout the year.

Take numbers: The amendment would increase takes of currently authorized marine mammal and sea turtle species. Increases in take numbers (most doubles) are due to the expansion of the action area and the increase in survey frequency; therefore, the greater possibility of marine mammal encounters.

Target Species: The amendment would add harassment of six marine mammal and sea turtle species:

Cetaceans

- Whale, Blainville's beaked (*Mesoplodon densirostris*);
- Whale, false killer (*Pseudorca crassidens*);

Sea Turtles

- Turtle, hawksbill (*Eretmochelys imbricata*), ENDANGERED;
- Turtle, loggerhead (*Caretta caretta*), THREATENED;
- Turtle, Kemp's ridley (*Lepidochelys kempii*), ENDANGERED; and
- Turtle, green (*Chelonia mydas*), THREATENED.

In addition, the current permit authorizes takes of bottlenose dolphins of the Western North Atlantic Coastal Stock and the Western North Atlantic Offshore Stock. The amendment would allow takes via aerial and vessel surveys of bottlenose dolphins range-wide instead of those two separate stocks.

The Permit Holder is also adding the following new categories of unidentified marine mammals for vessel and aerial surveys for when they're not sure what the species is:

Cetaceans

- Dolphin, unidentified;
- Whale, unidentified baleen;
- Whale, unidentified beaked;
- Whale, unidentified rorqual; and

Pinnipeds

- Pinniped, unidentified.

Note that the permit already includes a category for unidentified sea turtles. As with the take numbers, the addition of these species groups is due to the expansion of the study area and the addition of aerial surveys, which can make the identification of animals to species difficult.

3.0 AFFECTED ENVIRONMENT

Location – Action Area

A description of the physical and biological environment of the action area can be found in Chapter 3 of the 2012 EA. The harassment of marine mammals and sea turtles would occur at the time and in the place where the study is conducted. The action area would be expanded from New Jersey to North Carolina to include all U.S. waters from Maine to Florida along the 30 m isobath. This may affect additional unique areas (see below).

The permitted takes of marine mammals do not affect other components of the environment. Thus, the action area is effectively limited to the locations where the research occurs, or, more specifically, to where the marine mammals are at the time they are approached for observations.

Status of Target Species

Non-ESA listed marine mammals: The amendment would add the following two non-listed species and four categories of unidentified species:

- Dolphin, unidentified;
- Pinniped, unidentified;
- Whale, Blainville's beaked (*Mesoplodon densirostris*);
- Whale, false killer whales (*Pseudorca crassidens*);
- Whale, unidentified baleen;
- Whale, unidentified beaked; and
- Whale, unidentified rorqual.

It does not change the species or stocks of non-ESA listed marine mammals that may be harassed. Descriptions of these stocks can be found in Chapter 3 of the 2012 EA. In addition, the most current information on distribution, abundance, productivity, and human-caused mortality for these stocks is available in NMFS Stock Assessment reports. These reports are available at <http://www.nmfs.noaa.gov/pr/sars/species.htm#>.

ESA-listed marine mammals and sea turtles: The amendment would add takes for the following sea turtles:

- Turtle, hawksbill (*Eretmochelys imbricata*); endangered;
- Turtle, loggerhead (*Caretta caretta*); threatened;
- Turtle, Kemp's ridley (*Lepidochelys kempii*); endangered; and
- Turtle, green (*Chelonia mydas*); threatened.

Description of these species, that are the subject of the permit amendment, can be found in Chapter 3 of the 2012 EA. The most current estimates of abundance, productivity, and human-caused mortality for these species are available in the BO for this amendment (NMFS 2015).

Non-target species

In addition to the marine mammals and sea turtles that are the target of the proposed permit amendment, the action area is home to a variety of sea birds and numerous fish species. The harassment of marine mammals and sea turtles that may result from the proposed permit amendment

would not affect sea birds, fish, or other non-target animals. Thus, effects on species that are not the subject of the permit will not be considered further.

Biodiversity and Ecosystem Function

The preferred alternative does not interfere with benthic productivity, predator-prey interactions, or other biodiversity or ecosystem functions. Marine mammals and sea turtles will not be removed from the ecosystem or displaced from habitat, nor will the permitted taking affect their diet or foraging patterns. Further, the preferred alternative does not involve activities known or likely to result in the introduction or spread of non-indigenous species, such as ballast water exchange or movement of vessels among water bodies. Thus, effects on biodiversity and ecosystem function will not be considered further.

Ocean and Coastal Habitats, and Unique Areas

Section 3.2 of the 2012 EA describes the Marine Protected Areas, marine managed areas, essential fish habitat, and ESA designated critical habitat that occur in or near the action area. The preferred alternative does not affect habitat; it does not alter or affect any components of such protected areas, including EFH or elements of any critical habitat. It does not involve alteration of substrate, movement of water or air masses, or other interactions with physical features of ocean and coastal habitat. Thus, effects on habitat and on such unique areas will not be considered further.

Critical Habitat for North Atlantic Right Whales

Since the 2012 EA, NMFS published a proposed rule (80 FR 9314, February 2015) to expand the critical habitat for right whales in the North Atlantic (<http://www.gpo.gov/fdsys/pkg/FR-2015-02-20/pdf/2015-03389.pdf>). NMFS is proposing to replace the 1994 critical habitat designation (59 FR 28805; June 3, 1994) for the population of right whales in the North Atlantic Ocean with two new areas of critical habitat for the North Atlantic right whale. The 1994 designation includes portions of Cape Cod Bay and Stellwagen Bank, the Great South Channel (each off the coast of Massachusetts), and waters adjacent to the coasts of Georgia and the east coast of Florida (<http://www.nmfs.noaa.gov/pr/pdfs/fr/fr59-28805.pdf>). The areas under consideration contain approximately 29,945 nm² of marine habitat in the Gulf of Maine and Georges Bank region (Unit 1) and off the Southeast U.S. coast (Unit 2). The proposed study area overlaps with the current and considered designations of critical habitat. Given the nature of the preferred alternative, which will not alter or affect the substrate, movement of water or air masses, or other interactions with physical features of ocean habitat, the effects on critical habitat for North Atlantic right whales is negligible and will not be considered further.

National Marine Sanctuaries

In addition to the Stellwagen Bank and the Monitor National Marine Sanctuaries already discussed in the 2012 EA, research would occur within Gray's Reef National Marine Sanctuary. All holders of NMFS' scientific research permits conducting work within a National Marine Sanctuary are required to obtain appropriate authorizations from and coordinate the timing and location of their research with NOAA's National Marine Sanctuaries Program (NMSP).

Gray's Reef National Marine Sanctuary

Gray's Reef National Marine Sanctuary is one of the largest near-shore live-bottom reefs of the southeastern United States. It was designated as a sanctuary on January 16, 1981. It is the only protected natural reef area on the continental shelf off the Georgia coast and one of only a few

natural marine protected areas in the ocean between Cape Hatteras, NC and Cape Canaveral, FL. It is 22 square miles (about 14,000 acres) in size.

Historic Places, Scientific, Cultural, and Historical Resources

There are no historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers within the action area, which is limited to coastal and open waters in which no such areas occur. There are no districts, sites, highways or structures listed in or eligible for listing in the National Register of Historic Places in the action area. The preferred alternative does not have the potential to cause effects on historic properties. The preferred alternative represents non-consumptive use of marine mammals and does not preclude their availability for other scientific, cultural, or historic uses. Thus, effects on such resources will not be considered further.

Social and Economic Resources

The preferred alternative does not affect distribution of environmental burdens, access to natural or depletable resources or other social or economic concerns. It does not affect traffic and transportation patterns, risk of exposure to hazardous materials or wastes, risk of contracting disease, risk of damages from natural disasters, food safety, or other aspects of public health and safety. Thus, effects on such resources will not be considered further.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Effects of the No Action Alternative

The effects of the No Action Alternative, in which NMFS does not issue the permit amendment, are the same as the effects of issuing the original permit (No. 16109). The original permit includes harassment takes of 35 species of cetaceans, five species of sea turtles, and four species of pinnipeds. The effects of issuing the original permit were discussed and evaluated in the 2012 EA. Based on that 2012 EA, NMFS issued a FONSI and concluded that permit issuance would not significantly impact the quality of the human environment and that preparation of an EIS was not necessary.

If NMFS does not issue the permit amendment, the Permit Holder would not be able to gather additional data and to better understand the abundance /distribution of species. The vessel surveys would not be complemented with the aerial surveys, and the frequency of the vessel surveys would be less; therefore, the data would possibly be of lower quality. Note that other research permits would not be affected and would still authorize activities on these species. It is unlikely the applicant would conduct the research in the absence of a permit, because to do so would risk sanctions and enforcement actions.

Not issuing the amended permit (i.e., amendment denial) would obviate the potential adverse direct and indirect effects of the proposed amendment on the target and non-target species and any potentially adverse direct effects on the physical environment. Denial would also eliminate any indirect beneficial effects on conservation of the target species that might derive from the results of the research. This alternative only involves denial of the single amendment request in question. There are several other research permits in effect for the target species that would presumably yield information relevant to the need for conservation of the target species, but these may not meet the objectives of Versar, Inc. (the applicant).

4.2 Effects of the Proposed Action (Preferred Alternative)

Effects would occur at the time when the Permit Holder's research results in takes of marine mammals and sea turtles, including those listed as threatened or endangered.

Effects of expanding the action area

The proposed amendment would change the action area to include U.S. waters from Maine to Florida. The 2012 EA evaluated affected resources from Maine to North Carolina and found that the activities were directed at marine mammals and sea turtles and were not directed at or likely to have any impact on habitat. Additionally, the 2012 EA evaluated the effects of the activities on the range-wide distribution and/or stocks of marine mammals and sea turtles for which most include South Carolina to Florida as part of their range. The 2012 EA concluded that the research methods would not interfere with benthic productivity, predator-prey interactions, or other biodiversity or ecosystem functions; would not involve alteration of substrate, movement of water or air masses, or other interactions with physical features of ocean and coastal habitat; and would not affect traffic and transportation patterns, risk of exposure to hazardous materials or wastes, risk of contracting disease, risk of damages from natural disasters, food safety, or other aspects of public health and safety. Because the activities are directed at marine mammals and sea turtles and not expected to impact any other aspect of the human environment, expanding the action area to include South Carolina to Florida would not include new resources not previously considered in the 2012 EA.

Effects of changing the methods to add aerial surveys and increase vessel-based surveys frequency

Aerial Surveys

The proposed amendment would add takes by aerial surveys to the permit. The 2012 EA evaluated the effects of aerial surveys on marine mammal and sea turtles as a result of a batched analysis with another permit application. The 2012 EA concluded that for marine mammals, behavioral alterations are possible as a result of reactions to the shadow of the aircraft flashing across the animal or the audible presence of the aircraft. However, the effect of those changes are usually minor and temporary. For turtles, the reaction is likely to result in some level of stress for the sea turtles, but the avoidance reaction is not expected to result in harm and is within the normal spectrum of behaviors the animal might experience naturally.

Frequency of Vessel-Based Surveys

The proposed amendment would change the vessel-based survey frequency from once per season to twice a month, year-round, to generate abundance/density estimates for sea turtles and marine mammals. The 2012 EA analyzed the effects of year-round vessel surveys on marine mammals and sea turtles. It concluded that behavioral responses would be expected to vary from no response to diving or changing direction or tail slapping in marine mammals. Any potential effect of vessel approaches should be short-lived and minimal. These short-term behavioral responses would not likely lead to mortality, serious injury, or disruption of essential behaviors such as feeding, mating, or nursing, to a degree that the individual's likelihood of successful reproduction or survival would be substantially reduced.

Effects of increasing the take numbers

The proposed amendment would increase the number of marine mammals and sea turtles that could be harassed by (1) the expansion of the location, (2) the increased number of vessel surveys, and (3) the addition of aerial surveys. The 2012 EA considered the effects of permit issuance on a variety of marine mammals and sea turtles, and on physical and biological features of the action area. It evaluated impacts of issuing two permits, Nos. 16109 and 15575, for taking endangered and threatened sea turtles by harassment via vessel and aerial surveys. Permit No. 15575 included aerial surveys six times a month, year-round. The preferred alternative was issuance of the permits with the terms and conditions that are standard to permits issued by NMFS for harassment of marine mammals and sea turtles, including endangered species. The 2012 EA demonstrated that issuance of such permits only affects the animals that are the subject of the permits. It also determined that the effects of vessel and aerial harassment on these species and populations were not significant. The effects on the marine mammals and sea turtles taken by research, which were determined not significant in the 2012 EA, do not translate into effects on any other component of the biological or physical environment. It is not expected that increasing the take numbers as proposed will have a significant impact on individuals, populations, species, or any other component of the environment. The applicant is not requesting any changes to the preferred alternative that are considered substantial as they relate to environmental concerns. Additionally, there are no new circumstances or information relevant to environmental concerns of the preferred alternative.

Effects of adding mammal and sea turtle species that could be harassed

The proposed amendment would add takes of Blainsville's beaked and false killer whales and hawksbill, loggerhead, Kemp's ridley, and green sea turtles during vessel and aerial surveys. Although Blainsville's beaked whales were not specifically described in the 2012 EA, effects on the taxonomic group of mesoplodon beaked whale species was considered. The 2012 EA also evaluated effects of taking false killer whales, as well as the taking of the four other sea turtle species. It concluded that there would be no significant effects to the species or to individual animals affected by the research. The proposed takes of marine mammals and sea turtles in this action are not likely to contribute to individually or cumulatively significant adverse impacts on marine mammal stocks or species and sea turtle species, including those listed as threatened or endangered. The effects of the takes would be transitory and recoverable, associated with only minor and short-term changes in the behavior of a limited number of individual marine mammals and sea turtles.

In accordance with Section 7 of the ESA, a BO was prepared (NMFS 2015), which concluded that issuance of the proposed amendment and authorized takes would not jeopardize the existence of NMFS listed species or result in destruction or adverse modification of critical habitat.

4.3 Mitigation Measures

In addition to the mitigation measures identified by the Permit Holder and described in this SEA, mitigation measures from the original permit, as it was subsequently amended, would remain. There are no additional mitigation measures beyond those that are part of the Permit Holder's protocols or conditions that would be required by permit. The Permit Holder's protocols are incorporated into the permit by reference.

In summary, the permit conditions limit the level of take and require notification, coordination, monitoring, and reporting. A condition would be added stating that “during aerial surveys, if a non-target animal shows a response to the presence of the aircraft, the aircraft must leave the vicinity and either resume searching or continue on the line-transect survey.” Although injury and mortality are not expected, if they occur due to the authorized actions, the permit contains measures requiring researchers to cease activities until protocols have been reviewed and revised with NMFS.

Review of monitoring reports of previous permits for the same or similar research protocols indicate that these types of mitigation measures are effective at minimizing stress, pain, injury, and mortality associated with takes.

4.4 Cumulative Impacts

Cumulative effects are defined as those that result from incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency (federal or nonfederal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions that take place over a period of time.

There may already be substantial adverse impacts on marine mammals from the existing levels of human activities. Research would result in disturbance of target and non-target species, which are also exposed to disturbance from other human activities in the action area including vessel traffic, fishing, and recreation/tourism. Whether this frequency of disturbance, by itself or in combination with disturbance from other human activities, would result in cumulative adverse effects depends on how long the effects of each disturbance last, whether the animals have sufficient time between disturbance events to resume or compensate for disrupted activities, and whether the effects of repeated disturbance are additive, synergistic or accumulate in some other way.

It is not possible to describe in detail the extent of overlap with other researchers due to the large number of permits in the proposed study area (Maine to Florida). Despite this, there are several reasons why little overlap would be expected to occur:

- Many of the permits authorize research in a large study area; thus it is unlikely that the researchers will be in the same location at the same time.
- Some of the permits are focused on species that are not the subject of the proposed activities.
- NMFS permits for research on marine mammals and sea turtles require that researchers coordinate their activities with those of other permit holders to avoid unnecessary disturbance of animals. Permitted researchers are required to notify the appropriate NMFS Regional Office at least two weeks in advance of any planned field work so that the Regional Office can facilitate this coordination and take other steps appropriate to minimize disturbance from multiple permits.

If any researchers were present at the same time, it is still expected that individual animals would have time to recover between close approaches that have the potential to cause harassment. In addition, the activities proposed are dependent upon research funding which has not been secured at this time.

The proposed action would not have a significant cumulative effect on either the human or marine environment. The proposed action would be directed at marine mammals and sea turtles and would similarly not be likely to have a significant cumulative effect on target and non-target species. Aerial surveys are not expected to have any long-term effect on an individual, or population level impacts. Based on this and the analysis in the 2012 EA, it is highly unlikely that activities carried out by the researchers under the proposed amendment would have significant cumulative impacts when considered with other factors affecting marine mammals and sea turtles.

5.0 LIST OF PREPARERS AND AGENCIES CONSULTED

This document was prepared by the Permits and Conservation Division of NMFS' Office of Protected Resources in Silver Spring, Maryland.

6.0 LITERATURE CITED

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NMFS. 2012a. Environmental Assessment on Effects of Issuing Two Scientific Research Permits, No. 16109 and No. 15575, for Protected Sea Turtles and Marine Mammals.

NMFS. 2012b. Biological Opinion on the proposal to issue Permit Numbers 15575 to Robert DiGiovanni and 16109 to GeoMarine, Inc. to authorize research on marine mammals and sea turtles in the Atlantic Ocean from Massachusetts to North Carolina.

NMFS. 2015. Biological Opinion on the issuance of amendment to Permit No. 16109-01, issued to Versar, Inc. (formerly Geo-Marine, Inc.), for research activities on marine mammals and sea turtles in the Atlantic Ocean.

APPENDIX 1. Take Table for the Proposed Action (Issuance of Amended Permit with Standard Conditions).

Annual Takes ⁶ for Marine Mammals and Sea Turtles Year-Round During Aerial and Vessel Surveys in the Atlantic Ocean from Maine to Florida, to the limit of the Exclusive Economic Zone (EEZ).					
Species	Listing Unit/Stock	Lifestage/ Sex	No. of animals per year	Takes per animal	Procedures
Dolphin, Atlantic spotted	Western North Atlantic Stock	All	300	1	Count/survey; Incidental harassment; Observations, behavioral; Photo-id; Photograph/Video
Dolphin, Atlantic white-sided	Western North Atlantic Stock	All	100	1	
Dolphin, bottlenose	Range-wide	All	6000	1	
Dolphin, clymene	Western North Atlantic Stock	All	300	1	
Dolphin, common, short-beaked	Western North Atlantic Stock	All	3000	1	
Dolphin, Fraser's	Western North Atlantic Stock	All	40	1	
Dolphin, pantropical spotted	Western North Atlantic Stock	All	400	1	
Dolphin, Risso's	Western North Atlantic Stock	All	50	1	
Dolphin, rough-toothed	Range-wide	All	400	1	
Dolphin, spinner	Western North Atlantic Stock	All	400	1	
Dolphin, striped	Western North Atlantic Stock	All	400	1	
Dolphin, white-beaked	Western North Atlantic Stock	All	200	1	
Porpoise, harbor	Gulf of Maine/Bay of Fundy Stock	All	250	1	
Seal, gray	Western North Atlantic Stock	All	100	1	
Seal, harbor	Western North Atlantic Stock	All	100	1	
Seal, harp	Northwest North Atlantic Stock	All	100	1	
Seal, hooded	Western North Atlantic Stock	All	100	1	
Turtle, leatherback sea	Range-wide (NMFS Endangered)	Adult/ Subadult/ Juvenile	300	1	Count/survey; Photograph/Video
Turtle, unidentified (hardshell) sea	Range-wide (NMFS Threatened)	Adult/ Subadult/ Juvenile	300	1	

⁶ Takes = the maximum number of animals that may be targeted for research annually in each row of the table.

Annual Takes⁶ for Marine Mammals and Sea Turtles Year-Round During **Aerial and Vessel Surveys in the Atlantic Ocean **from Maine to Florida, to the limit of the Exclusive Economic Zone (EEZ).****

Species	Listing Unit/Stock	Lifestage/ Sex	No. of animals per year	Takes per animal	Procedures
Whale, blue	Western North Atlantic Stock (NMFS Endangered)	All	100	1	Count/survey; Incidental harassment; Observations, behavioral; Photo-id; Photograph/Video
Whale, Bryde's	Range-wide	All	20	1	
Whale, Cuvier's beaked	Western North Atlantic Stock	All	40	1	
Whale, dwarf sperm	Western North Atlantic Stock	All	30	1	
Whale, fin	Western North Atlantic Stock (NMFS Endangered)	All	150	1	
Whale, Gervais' beaked	Range-wide	All	10	1	
Whale, humpback	Western North Atlantic Stock (NMFS Endangered)	All	150	1	
Whale, killer	Western North Atlantic Stock	All	100	1	
Whale, melon-headed	Western North Atlantic	All	40	1	
Whale, Mesoplodon beaked	Western North Atlantic Stock	All	40	1	
Whale, minke	Range-wide	All	150	1	
Whale, northern bottlenose	Western North Atlantic Stock	All	20	1	
Whale, pilot, long-finned	Western North Atlantic Stock	All	250	1	
Whale, pilot, short-finned	Western North Atlantic Stock	All	250	1	
Whale, pygmy killer	Western North Atlantic Stock	All	30	1	
Whale, pygmy sperm	Western North Atlantic Stock	All	50	1	
Whale, right, North Atlantic	Western Atlantic Stock (NMFS Endangered)	All	150	1	
Whale, sei	Nova Scotia Stock (NMFS Endangered)	All	150	1	
Whale, Sowerby's beaked	Range-wide	All	20	1	
Whale, sperm	North Atlantic Stock (NMFS Endangered)	All	100	1	
Whale, True's beaked	Range-wide	All	50	1	

Annual Takes⁶ for Marine Mammals and Sea Turtles Year-Round During Aerial and Vessel Surveys in the Atlantic Ocean from Maine to Florida, to the limit of the Exclusive Economic Zone (EEZ).

Species	Listing Unit/Stock	Lifestage/ Sex	No. of animals per year	Takes per animal	Procedures
Whale, Blainville's beaked	Range-wide	All	50	1	Count/survey; Incidental harassment; Observations, behavioral; Photo-id; Photograph/Video
Whale, false killer	Range-wide	All	50	1	
Turtle, hawksbill sea	Range-wide (NMFS Endangered)	Adult/ Subadult/ Juvenile	300	1	Count/survey; Photograph/Video
Turtle, loggerhead sea	Range-wide (NMFS Threatened)	Adult/ Subadult/ Juvenile	300	1	
Turtle, green sea	Range-wide (NMFS Threatened)	Adult/ Subadult/ Juvenile	300	1	
Turtle, Kemp's ridley sea	Range-wide (NMFS Endangered)	Adult/ Subadult/ Juvenile	300	1	
Whale, unidentified baleen	NA	All	100	1	Count/survey; Incidental harassment; Observations, behavioral; Photo-id; Photograph/Video
Whale, unidentified beaked	NA	All	50	1	
Whale, unidentified rorqual	NA	All	100	1	
Dolphin, unidentified	NA	All	1000	1	
Pinniped, unidentified	NA	All	50	1	Count/survey; Incidental disturbance; Observations, behavioral; Photo-id



Finding of No Significant Impact
for the Supplemental Environmental Assessment on the
Effects of Issuing an Amendment to Scientific Research Permit No. 16109-01 for Protected
Sea Turtles and Marine Mammals

OVERVIEW

On August 5, 2012, Versar, Inc. (formerly GeoMarine, Inc.) submitted a request to the National Oceanic and Atmospheric Administration (NOAA) to amend their current scientific research permit (No. 16109-01) to allow takes of marine mammals and sea turtle species from the use of aerial line transect surveys and from increasing the number of vessel-based surveys and extending the survey areas.

In response to Versar's request, the National Marine Fisheries Service (NMFS) proposes to issue a major amendment to scientific research permit No. 16109-01 for takes of marine mammals and sea turtles in the wild, pursuant to the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*) and the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*). The amended scientific research permit updates the Permit Holder information and includes the following modifications to data collection efforts necessary for obtaining and generating abundance and density estimates for sea turtles and other marine mammals:

- Extend the action area to include all U.S. waters from Maine to Florida up to the limit of the Exclusive Economic Zone;
- Authorize harassment during aerial surveys;
- Change the frequency of vessel-based surveys currently authorized from once per season to twice a month, year-round;
- Increase take numbers currently authorized for marine mammals and sea turtles; and
- Add six species [i.e., Blainville's beaked whale (*Mesoplodon densirostris*), false killer whales (*Pseudorca crassidens*), hawksbill (*Eretmochelys imbricata*), loggerhead (*Caretta caretta*), Kemp's ridley (*Lepidochelys kempii*), and green (*Chelonia mydas*) sea turtles].

Our proposed action, issuance of Permit No. 16109-02, is in response to the applicant's request to amend their current scientific research permit activities, which have the potential to behaviorally disturb marine mammals and sea turtles. The permit would be issued under section 104 of the MMPA and section 10(a)(1)(A) of the ESA.

BACKGROUND

NMFS issues scientific research permits pursuant to the MMPA and ESA and its implementing regulations (50 CFR Parts 216 and 222-226). These laws and regulations prohibit takes of marine mammals and threatened and endangered species, respectively, with only a few specific exceptions, including scientific research and enhancement. In addition, issuance of these permits are dependent on criteria to ensure all scientific research and enhancement activities are consistent with the purposes and policies of these federal laws and regulations and will not have a significant adverse impact on the target species or stock. The issuance of a scientific research permit would allow for the harassment of marine mammals and sea turtles consistent with the provisions of the MMPA and ESA, and is considered a major federal action under the National



Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 et seq.). Thus, we prepared this Supplemental Environmental Assessment (SEA) in accordance with NEPA, the Council on Environmental Quality (CEQ) regulations in 40 CFR §§ 1500-1508, and NOAA Administrative Order (NAO) 216-6 “Environmental Review Procedures for Implementing the National Environmental Policy Act”.

This SEA addresses the potential environmental impacts of NMFS’ proposed action and the No Action Alternative and evaluates whether permitting additional harassment of marine mammals and sea turtles as proposed in the amendment request, would change the manner in which the action may affect the environment compared to the effects documented and analyzed in the 2012 EA prepared for issuance of the original permit. In addition, a Biological Opinion was issued on December 2015 summarizing the results of an intra-agency consultation.

ANALYSIS

NAO 216-6 contains criteria for determining the significance of the impacts of a proposed action. In addition, CEQ regulations at 40 C.F.R. § 1508.27 state that the significance of an action should be analyzed both in terms of “context” and “intensity.” Each criterion listed is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ’s context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans?

Response: Issuance of a permit as described in Alternative 2 of the SEA is not reasonably expected to cause substantial damage to ocean and coastal habitats or essential fish habitat (EFH). Although EFH may be present in the action area, none of the proposed activities are directed at or likely to have any impact on habitat, they would only affect marine mammal, sea turtles and pinnipeds authorized for research by the permit. The proposed action does not involve alteration of substrate, movement of water or air masses, or other interactions with physical features of ocean and coastal habitat nor would it result in activities that have been shown to affect EFH including disturbance or destruction of habitat from stationary fishing gear, dredging and filling, agricultural and urban runoff, direct discharge, or the introduction of exotic species. The majority of research would only involve routine vessel movements at the water surface and aerial surveys above land and water, and all activities would be directed at target marine mammal and sea turtle species. The effects of such disturbance would be transitory and recoverable and, therefore, no EFH consultation was required.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: The proposed action is not expected to affect biodiversity or ecosystem function. The effects of the action on target species, including ESA-listed species and their habitat, EFH, marine sanctuaries, and non-target species were all considered in the SEA. The proposed action would target marine mammals and sea turtles for photo-identification and observation, which is

expected to result in short-term minimal disturbance to individual animals. This work is not expected to interfere with benthic productivity, an animal's susceptibility to predation, alter dietary preferences or foraging behavior, or change distribution or abundance of predators or prey. The research authorized by the permit would not likely alter foraging patterns, dietary preferences, or relative distribution or abundance of species groups within the area. The research activities would not affect nutrient flux, primary productivity, or other factors related to ecosystem function in the area.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: Conduct of the research authorized by the permit would not be expected to affect things typically associated with impacts on public health and safety such as traffic and transportation patterns; noise levels; risks of exposure to hazardous materials and wastes; risks of contracting disease; risks of damages from natural disasters; or food safety. The proposed action involves aerial and vessel surveys and close approach of vessels for behavioral observation, and photo-identification of marine mammals and sea turtles. The research activities would be conducted by or under the close supervision of qualified personnel in a safe manner as required by the permit. These activities would not involve hazardous methods, toxic agents or pathogens, or other materials that could have an adverse impact on public health and safety.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: As analyzed in the original 2012 Biological Opinion and reiterated in the 2015 Biological Opinion, the proposed action would affect ESA-listed species in the action area during research. Researchers may harass individual animals during vessel based activities. However, the biological opinions concluded that the effects of the proposed action would be short-term in nature to individual animals. The proposed action would not likely jeopardize the continued existence of any ESA-listed species and would not likely destroy or adversely modify designated critical habitat. There is designated critical habitat for North Atlantic right whales in the action area; however, none of the research activities would affect the constituent elements of the habitat. Conduct of the permitted research is not expected to adversely affect critical habitat in the area given the nature of the preferred alternative, which will not alter or affect the substrate, movement of water or air masses, or other interactions with physical features of ocean and coastal habitat. The research activities would not affect the North Atlantic right whales prey species or the quality of the water. No injuries to listed species are expected. No other non-target species would be affected by the proposed research. Further, the permit would contain mitigation measures to minimize the effects of the research and to avoid unnecessary stress to any protected species by requiring use of specific research protocols.

Conduct of the research authorized by the permit would directly and indirectly result in adverse effects on a specified number of animals targeted by the research, as well as non-target animals in the immediate vicinity of the research. Given the mitigation measures required by the permit, these adverse effects are likely to result only in transitory and recoverable changes in behavior and physiological parameters of the affected animals, but are not expected to result in measurable effects on populations, stocks, or species.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: Conduct of the permitted research would result in insignificant effects on the natural and physical environment, and there are no significant social or economic impacts interrelated with these effects. The research would not involve and is not associated with factors typically related to effects on the social and economic environment such as inequitable distributions of environmental burdens or differential access to natural or depletable resources in the action area. Effects of the research would be limited to the short-term harassment of target animals. Issuance of this permit and conduct of the authorized research would not substantially impact short- or long-term use of the environment or result in use of natural or depletable resources, such as might be expected from construction or resource extraction activities. Issuance of this permit and conduct of the research would not result in inequitable distributions of environmental burdens or access to environmental goods. Permitting the proposed research could result in a low level of economic benefit to local economies in the action area. However, such impacts would be negligible on a national or regional level and therefore are not considered significant.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: NMFS does not consider the proposed action controversial nor has it been considered controversial in the past. The proposed research activities are standard research activities that have been conducted on these species by the scientific community for decades. A *Federal Register* notice (79 FR 8159) was published to allow other agencies and the public the opportunity to review and comment on the action. No comments were received. No other portion of the marine environment beyond the target species would be impacted by the proposed action.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: Conduct of the permitted research is not expected to substantially impact unique or ecologically critical areas. There are a number of places within the action area that could be considered unique or ecologically critical, including coastal wetlands, a National Marine Sanctuary, several National Wildlife Refuges, State Parks, EFH, and designated critical habitat. There is designated critical habitat for North Atlantic right whales in the action area; however, as determined by the 2012 and 2015 biological opinions, the proposed action is not expected to destroy or adversely modify designated critical habitat. The proposed research does not involve alteration of substrate, movement of water or air masses, or other interactions with physical features of ocean and coastal habitat and would not be expected to result in substantial impacts to any such areas. Research activities would occur in the U.S.S. Monitor, the Stellwagen Bank, and Gray's Reef National Marine Sanctuaries but would be coordinated with Sanctuary staff and would not result in substantial impacts to the Sanctuary. There are no districts, sites, highways or structures listed in or eligible for listing in the National Register of Historic Places in the action area. The proposed action represents non-consumptive use of marine mammals and does not preclude their availability for other scientific, cultural, or historic uses.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The effects of the permitted research on the human environment are not highly uncertain and the research does not involve unique or unknown risks. The proposed activities have been previously authorized as research activities for cetaceans and sea turtles for decades. There have been no reported serious injuries or mortalities of target species or risks to any other portion of the human environment as a result of these research activities. Therefore, the risks to the human environment would not be unique or unknown.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: The proposed action is not related to other actions with individually insignificant, but cumulatively significant impacts. While the target species are impacted by other human activities, including other scientific research, these activities are not occurring simultaneously on the same individuals of a population/stock. The short-term stresses (separately and cumulatively when added to other stresses marine mammals face in the environment) resulting from the research activities would be expected to be minimal. The amended permit would continue to contain conditions to mitigate and minimize any impacts to the animals from research activities, including requiring the coordination of activities with other researchers in the area.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: Conduct of the permitted research would not take place in any district, site, highway, structure, or object listed in or eligible for listing in the National Register of Historic Places, thus none would be impacted. The proposed action would also not occur in an area of significant scientific, cultural or historical resources and thus would not cause their loss or destruction.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: Issuance of this permit is not expected to result in the introduction or spread of non-indigenous species. The research may involve movement of vessels but involves neither handling animals in the wild nor transporting them among locations. The action would not be removing or introducing any species. The research is not associated with any known mechanisms of transporting and introducing non-indigenous species. For example, researchers would not be moving between bodies of water.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Response: Issuance of this permit is not likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration. NMFS has

issued numerous scientific research permits pursuant to section 104 of the MMPA and section 10 of the ESA. Nothing about NMFS' decision making process pursuant to the statutory and regulatory criteria is unique to this permit, nor are these the first permits NMFS has issued for this type of research activity. Issuance of this permit would not involve any irreversible or irretrievable commitments of resources. In addition, the issuance of a permit to a specific individual or organization for a given research activity would not in any way guarantee or imply that NMFS will authorize other individuals or organizations to conduct the same research activity. Any future request received would be evaluated upon its own merits relative to the criteria established in the MMPA, ESA, and NMFS' implementing regulations.

13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: The proposed action is not expected to result in any violation of Federal, State, or local laws or requirements imposed for the protection of the environment. NMFS has jurisdiction for issuance of such permits for marine mammals and sea turtles while in the water and has determined the proposed research to be consistent with all applicable provisions of the MMPA and ESA. In addition, the permit currently contains language stating that the "permit does not relieve the Permit Holder of the responsibility to obtain any other permits, or comply with any other Federal, State, local, or international laws or regulations" necessary to carry out the action.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: The proposed action is not expected to result in any cumulative adverse effects to the species that are the subject of the proposed research or non-target species found in these waters. Effects on the target species are expected to be temporary and limited to a specified number of individuals, and not expected to raise to a level that would impact a stock, population, or species. While non-target species may be encountered incidentally, they would not be intentionally approached, and are not expected to be affected by the proposed action.

DETERMINATION

In view of the information presented in this document, the analyses contained in the SEA for the Effects of Issuing an Amendment to Scientific Research Permit No. 16109-01 for Protected Sea Turtles and Marine Mammals dated December 2015, the Biological Opinion dated December 2015, and previous analyses prepared by NMFS, it is hereby determined that issuance of this permit modification to Versar, Inc., will not significantly impact the quality of the human environment. In addition, all beneficial and adverse impacts of the NMFS proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.



Donna S. Wieting
Director, Office of Protected Resources

DEC 01 2015

Date