FINDING OF NO SIGNIFICANT IMPACT FOR THE ISSUANCE OF AN INCIDENTAL HARASSMENT AUTHORIZATION TO THE U.S. NAVY TO TAKE MARINE MAMMALS BY HARASSMENT INCIDENTAL TO ARCTIC RESEARCH ACTIVITIES IN THE BEAUFORT AND EASTERN CHUKCHI SEAS 2022-2023

FINDING OF NO SIGNIFICANT IMPACT

I. Purpose of Finding of No Significant Impact (FONSI): The National Environmental Policy Act (NEPA) requires the preparation of an Environmental Impact Statement (EIS) for any proposal for a major federal action significantly affecting the quality of the human environment. 42 U.S.C. § 4332(C). The Council on Environmental Quality (CEQ) Regulations direct agencies to prepare a Finding of No Significant Impact (FONSI) when an action not otherwise excluded will not have a significant impact on the human environment. 40 CFR §§ 1500.4(b), 1500.5(b), & 1501.6. To evaluate whether a significant impact on the human environment is likely, the CEQ regulations direct agencies to analyze the potentially affected environment and the degree of the effects of the proposed action. 40 CFR § 1501.3(b). In doing so, agencies should consider the geographic extent of the affected area (i.e., national, regional or local), the resources located in the affected area (40 CFR § 1501.3(b)(1)), and whether the project is considered minor or small-scale (NAO 216-6A CM, Appendix A-2). In considering the degree of effect on these resources, agencies should examine, as appropriate, short- and long-term effects, beneficial and adverse effects, and effects on public health and safety, as well as effects that would violate laws for the protection of the environment (40 CFR § 1501.3(b)(2)(i)-(iv); NAO 216-6A CM Appendix A-2 - A-3), and the magnitude of the effect (e.g., negligible, minor, moderate, major). CEQ identifies specific criteria for consideration. 40 CFR § 1501.3(b)(2)(i)-(iv). Each criterion is discussed below with respect to the proposed action and considered individually as well as in combination with the others.

In preparing this FONSI, we reviewed the U.S. Navy’s Overseas Environmental Assessment (OEA), Office of Naval Research Arctic Research Activities in the Beaufort and Eastern Chukchi Seas 2022-2025, which evaluates the affected area, the scale and geographic extent of the proposed action, and the degree of effects on those resources (including the duration of impact, and whether the impacts were adverse and/or beneficial and their magnitude). The OEA is hereby incorporated by reference. 40 CFR § 1501.6(b).

II. Approach to Analysis:
NMFS proposes to issue an Incidental Harassment Authorization (IHA) to the Office of Naval Research (ONR) pursuant to Section 101(a)(5)(D) of the MMPA and 50 Code of Federal Regulations (CFR) Part 216. This IHA will be valid for one year from the date of issuance and authorizes takes, by Level B harassment, of marine mammals incidental to Arctic Research Activities in the Beaufort and eastern Chukchi Seas. No take of marine mammals by injury (Level A harassment), serious injury, or mortality is anticipated or proposed to be authorized in the IHA. The Arctic Research Activities would involve acoustic testing and a multi-frequency navigation system concept test employing acoustic sources to gain a better understanding of climate change in the Arctic environment. Active acoustic sources transmitting at very-low (35 hertz (Hz)), low (900 Hz), and mid (10 kilohertz (kHz)) frequencies would be deployed as moored, ice-tethered, or drifting from the research vessel. Acoustic sources and receivers would provide a means of performing under-ice navigation for gliders and unmanned underwater vehicles (UUVs). Up to
seven fixed low frequency acoustic navigation sources would remain in place for a year. Drifting and moored oceanographic sensors would record environmental parameters throughout the year. Personnel aboard the research vessel would conduct approximately 120 hours of active source testing before leaving the study area. Underwater sound from the acoustic sources may result in Level B harassment of two species (comprising three stocks) of marine mammals in the form of startling or avoidance reactions, increased swimming speed, increased surfacing time, or decreased foraging. Therefore, ONR requires an authorization from NMFS for incidental taking pursuant to the MMPA. An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact\(^1\) on the species or stocks, and, where relevant, will not have an unmitigable adverse impact on the availability of the species or stocks for subsistence uses. In addition, the IHA must set forth the permissible methods of taking, other means of effecting the least practicable adverse impact on the species or stock and its habitat, and requirements pertaining to the monitoring and reporting of such takings.

NMFS’ proposed action is the issuance of an IHA to ONR and is a direct outcome of ONR’s request for an IHA for conducting the Arctic Research Activities. The ONR’s action may cause effects to the resources in the affected area, though there is no potential for the effects of NMFS’ action to add to the effects of other projects, including the ONR’s action, such that the effects taken together could be significant.

The proposed action is not considered to meaningfully contribute to a significant impact based on scale of impact (authorization of take of beluga whales and ringed seals, by Level B harassment only) as the action is temporary (i.e., will be in place for one year) and the activities have very little economic and environmental impact. No take of marine mammals by injury (Level A harassment), serious injury, or mortality is anticipated or proposed to be authorized in the IHA.

The proposed action will not meaningfully contribute to significant impacts to specific resources, given the limited scope of NMFS’ action and required mitigation measures, as described in the 2022 OEA and this FONSI. NMFS has determined the proposed activity will have a negligible impact on all affected marine mammal species and stocks, and their habitat.

The NMFS proposed action is not connected to other actions that have caused or may cause effects to the resources in the affected area, and there is no potential for the effects of the proposed action to add to the effects of other projects, such that the effects taken together could be significant.

**III. Geographic Extent and Scale of the Proposed Action:** The proposed action would occur within the Study Area, which includes the U.S. Exclusive Economic Zone (EEZ), the global commons, and the Canadian EEZ (Figure 1-1 of the 2022 OEA). The proposed action would primarily occur in the Beaufort Sea but the analysis considers the drifting of active sources on buoys into the eastern portion of the Chukchi Sea. The closest point of the study area to the Alaska coast is 110 nm. The environmental effects analyzed in the 2022 OEA occur at a relatively small scale. As described in the 2022 OEA, activities are far enough offshore to minimize any impacts to subsistence hunts.

\(^{1}\) NMFS defines “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” (50 CFR § 216.103)
IV. Degree of Effect:

A. The potential for the proposed action to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection.

The issuance of this IHA to ONR would not violate any federal, state, or local laws for environmental protection. NMFS’ compliance with environmental laws and regulations is based on NMFS’ action and the nature of the applicant’s activities. NMFS complied with the requirements of the MMPA in developing this IHA. NMFS Office of Protected Resources (OPR) also consulted with the NMFS Alaska Regional Office (AKR) under Section 7 of the Endangered Species Act (ESA) to determine if the issuance of this IHA would likely jeopardize the continued existence of listed species or result in the destruction or adverse modification of ESA designated critical habitat. AKR issued a biological opinion concluding that issuance of an IHA would not jeopardize any listed species or destroy or adversely modify critical habitat, described further in section C, below. ONR fulfilled its responsibilities under the MMPA and ESA for this action and will be required to obtain any additional federal, state, and local permits necessary to carry out the proposed Arctic research activities.

B. The degree to which the proposed action is expected to affect public health or safety.

The issuance of this IHA to ONR to authorize take of marine mammals is not likely to affect public health or safety because the proposed Arctic research activities will take place across a broad area of a relatively remote marine environment and is unlikely to overlap with activities conducted by the public or subsistence hunters. NMFS only authorizes the take of marine mammal species associated with these activities, which does not involve the public or expose the public directly (e.g., chemicals, diseases) or indirectly (e.g., food sources) to hazardous or toxic materials in a way that would be linked to the quality of the environment and well-being of humans.

C. The degree to which the proposed actions is expected to affect a sensitive biological resource, including:

a. Federal threatened or endangered species and critical habitat;

The issuance of this IHA to ONR would not violate any federal, state, or local laws for environmental protection. NMFS’ compliance with environmental laws and regulations is based on NMFS’ action and the nature of the applicant’s activities. The issuance of this IHA to the ONR would authorize incidental take in the form of short-term and localized changes in behavior and/or temporary displacement and temporary threshold shift (TTS) of Arctic ringed seals, which are listed as threatened under the ESA. NMFS OPR initiated a Section 7 Consultation with the NMFS AKR on July 21, 2022. AKR issued a Biological Opinion concluding that the issuance of an IHA to ONR for ARA is not likely to jeopardize the continued existence of Arctic ringed seals.

NMFS expects that the responses of ringed seals from the Navy’s activities would primarily be in the form of temporary displacement from the area and/or short-term behavioral changes, with limited potential for TTS, falling within the MMPA definition of “Level B harassment.” NMFS does not anticipate that take by injury (Level A harassment), serious injury, or mortality would occur, nor has NMFS proposed to authorize take by injury, serious injury, or mortality. Further, as
described in Section 5.1 of the 2022 OEA (Mitigation Measures), ONR would implement mitigation measures to reduce or avoid potential harm to marine resources, including marine mammals.

NMFS has proposed the designation of critical habitat for the Arctic subspecies of the ringed seal (86 FR 1452; January 8, 2021). There is a small overlap of the ARA study area with the ringed seal ESA designated critical habitat (Figure 3-8 in the 2022 OEA). However, NMFS does not anticipate significant impacts to any marine mammal habitat, including the proposed ringed seal critical habitat as a result of the ONR’s ARA due to the short duration of activities and additional similar habitat available nearby.

b. **Stocks of marine mammals as defined in the Marine Mammal Protection Act;**

As stated above, the issuance of this IHA to ONR would authorize incidental take, by Level B harassment, in the form of short-term and localized changes in behavior and/or temporary displacement of two stocks (Beaufort, Chukchi Sea) beluga whales and Arctic ringed seals, in addition to potential TTS of Arctic ringed seals. NMFS has proposed issuing an IHA to authorize this incidental take, by Level B harassment, of beluga whales and Arctic ringed seals. Take by injury (Level A harassment), serious injury, or mortality is not anticipated nor proposed to be authorized.

In addition to considering estimates of the number of marine mammals that are reasonably likely to be “taken” by harassment, NMFS considered other factors, such as the likely nature of any responses (e.g., intensity, duration), the context of any responses (e.g., critical reproductive time or location, migration), as well as effects on habitat, and the likely effectiveness of the mitigation. NMFS also assessed the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS’ implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (e.g., as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

ONR calculated the number of estimated takes of marine mammals, by Level B harassment, from active acoustic sources using the Navy Acoustic Effects Model (NAEMO) and behavioral dose response function. The number of anticipated takes are low relative to the estimated abundances of the affected stocks.

Additionally, the ONR’s proposed action is temporary and of relatively short duration. Potential adverse effects on prey species would also be temporary and spatially limited. Furthermore, alternate areas of similar habitat value for affected marine mammals would be available allowing animals to temporarily vacate the affected areas to avoid exposure to sound.

For these reasons, impacts resulting from this activity are not expected to significantly affect the marine mammal species or stocks as defined in the MMPA.
Accordingly, NMFS preliminarily determined that the specified activity would have a negligible impact on the affected species and stocks of marine mammals.

The mitigation measures which ONR plans to implement, and which would be required by the IHA to ensure the least practicable impact on affected marine mammals and their habitat, are described in Section 5.1 (Mitigation Measures) of the 2022 OEA.

c. **Essential fish habitat identified under the Magnuson–Stevens Fishery Conservation and Management Act;**
   NMFS’ proposed action of issuing an IHA to the ONR to incidentally take marine mammals, by Level B harassment only, would not cause substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH). As stated in Section 3.2.2.4 (Essential Fish Habitat) of the 2022 OEA, the only fish species for which EFH has been designated within the ARA Study Area is Arctic cod. Elevated sound levels from drifting acoustic sources and ice breaking noise have the potential to affect Arctic cod EFH. No low frequency or VLF sources would be moored within Arctic cod EFH. Ice breaking may also impact EFH by resulting in reduced ice cover. As stated in the 2022 OEA, ONR completed EFH consultation and received concurrence from NMFS on July 29, 2022, in accordance with the Magnuson–Stevens Fishery Conservation and Management Act.

d. **Bird species protected under the Migratory Bird Treaty Act;**
   NMFS’ proposed action of issuing an IHA to the ONR to incidentally take marine mammals, by Level B harassment only, in the form of short-term and localized changes in behavior and/or temporary displacement of beluga whales and Arctic ringed seals as well as TTS of Arctic ringed seals, would not result in a significant adverse effect on a population of migratory bird species. The impacts of NMFS’ proposed action on marine mammals would be temporary and localized in nature and would not result in substantial impacts to marine mammals or to their role in the ecosystem, including in relation to birds.

e. **National marine sanctuaries or monuments;**
   NMFS’ proposed action of issuing an IHA to ONR incidentally take marine mammals would not affect a national marine sanctuary or monument, as ONR’s proposed activity does not take place within or near either. Therefore, take authorized under the IHA, if issued, would also not occur within or near a national marine sanctuary or monument.

f. **Vulnerable marine or coastal ecosystems, including, but not limited to, shallow or deep coral ecosystems;**
   NMFS’ proposed action of issuing an IHA to ONR to incidentally take beluga whales and ringed seals would not cause substantial damage to marine or coastal ecosystems, as the action would be limited to the authorization of take by Level B harassment of these species incidental to noise generated by active acoustic sources and ice breaking. IHAs do not authorize the underlying activity (in this case, the ONR’s training and testing activities), only the take incidental to that activity. The incidental take of beluga whales and ringed seals, by Level B harassment that would
be authorized under this IHA, if issued would not have any effect on vulnerable marine or coastal ecosystems.

g. **Biodiversity or ecosystem functioning (e.g., benthic productivity, predator-prey relationships, etc.)**

NMFS’ proposed action of issuing an IHA to ONR to incidentally take marine mammals would not have a substantial impact on biodiversity and/or ecosystem function within the ARA Study Area. NMFS expects that the ONR’s proposed action may result in take by Level B harassment, in the form of short-term and localized changes in behavior and/or temporary displacement of beluga whales and Arctic ringed seals, and TTS of Arctic ringed seals, and has proposed issuing an IHA to authorize this take. Any impacts would be temporary and localized in nature and would not result in substantial impacts to beluga whales or ringed seals or to their roles in the ecosystem. Take by injury (Level A harassment), serious injury, or mortality is not anticipated nor proposed to be authorized.

**D. The degree to which the proposed action is reasonably expected to affect a cultural resource: properties listed or eligible for listing on the National Register of Historic Places; archeological resources (including underwater resources); and resources important to traditional cultural and religious tribal practice.**

NMFS’ proposed action of issuing an IHA to ONR to incidentally take marine mammals would have no foreseeable impact to unique areas, such as historic or cultural resources, parkland, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas. NMFS expects that ONR’s proposed action may result in take by Level B harassment, in the form of short-term and localized changes in behavior and/or temporary displacement of beluga whales and ringed seals, and TTS of Arctic ringed seals, and has proposed issuing an IHA to authorize this take. Such harassment is not expected to substantially impact ecologically critical areas or cultural resources, as the impacts would be to marine mammals themselves as well as being temporary and localized in nature. Take by injury (Level A harassment), serious injury, or mortality is not anticipated nor proposed to be authorized.

As stated in Section 3 of the 2022 OEA, no known archaeological, cultural, or historical resources are located within the ARA study area.

NMFS’ proposed action of issuing an IHA to ONR to incidentally take marine mammals is not reasonably likely to cause impacts to resources important to traditional culture and religious tribal practice, given the short-term, temporary nature of the activity, the negligible impact of the take on affected marine mammals, and the distance offshore where take would be expected to occur. Although belugas and seals are harvested for subsistence uses off the North Slope of Alaska, ONR’s proposed action (and therefore, the take of ringed seals that would be authorized through the IHA), would occur far outside of the range for subsistence hunting with the closest active acoustic source being located approximately 240 km from land and 130 km at the closest point to any subsistence hunting. Further, take of marine mammals by injury (Level A harassment), serious injury, or mortality is not anticipated nor proposed to be authorized in the IHA.

**E. The degree to which the proposed action has the potential to have a disproportionately high and adverse effect on the health or the environment of minority or low-income communities, compared to the impacts on other communities (EO 12898).**
NMFS’ proposed action of issuing an IHA to ONR to incidentally take marine mammals would have no foreseeable impact to minority or low-income communities, let alone a disproportionately high impact to those communities in comparison to the impacts on other communities. While the ONR’s activities would occur in the Arctic Ocean, and Alaska Natives subsistence hunt beluga whales and ringed seals in the Arctic Ocean, ONR’s proposed action (and therefore, the take of marine mammals that would be authorized through the IHA) would occur outside of the primary subsistence hunting areas. Though beluga whales and ringed seals are harvested for subsistence uses off the North Slope of Alaska, the ARA study area boundary is seaward of subsistence hunting areas (approximately 130 km from shore at the closest point, though the closest active acoustic sources would be located farther offshore at 240 km from land).

F. The degree to which the proposed action is likely to result in effects that contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of the species.

NMFS’ proposed action of issuing an IHA to ONR to incidentally take marine mammals would not result in effects that contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of the species. The IHA would be limited to the take of beluga whales and ringed seals incidental to the ONR’s proposed active acoustic testing. IHAs do not authorize the underlying activity (in this case, the ONR’s testing activities), only the take incidental to that activity. The incidental take of beluga whales and ringed seals, by Level B harassment only, that would be authorized under this IHA would not contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of the species.

G. The potential for the proposed action to cause an effect to any other physical or biological resources where the impact is considered substantial in magnitude (e.g., irreversible loss of coastal resource such as marshland or seagrass) or over which there is substantial uncertainty or scientific disagreement.

NMFS’ proposed action of issuing an IHA to ONR to incidentally take marine mammals is not expected to cause an effect to any other physical or biological resources where the impact is considered substantial in magnitude (e.g., irreversible loss of coastal resource such as marshland or seagrass) or over which there is substantial uncertainty or scientific disagreement. NMFS’ proposed IHA would authorize incidental take by Level B harassment of two stocks of beluga whales and Arctic ringed seals. The take that is expected to occur and proposed for authorization is based on the best available science. This incidental take is expected to be in the form of short-term and localized changes in behavior and/or temporary displacement, and TTS, based on numerous scientific studies, modeling informed by scientific studies, and monitoring conducted as a requirement under previous IHAs for other projects. Any impacts would be temporary and local in nature and are not expected to cause any effect to any other physical or biological resources. Take by injury (Level A harassment), serious injury, or mortality is not anticipated nor proposed to be authorized.

There is scientific uncertainty regarding the abundance of the Alaska stock of ringed seals, for which take by Level B harassment would be authorized through the IHA, if issued.
However, this uncertainty does not affect NMFS’ ability to determine that impacts of NMFS’ action would not be significant, given the nature of the ONR’s actions for which take would be authorized, as well as the proposed mitigation measures, as described in Section 5.1 of the 2022 OEA.

V. Other Actions Including Connected Actions:
As described in Section 1.3 (Purpose and Need) of the 2022 OEA, NMFS’ proposed action and the purpose and need for that action, are a direct outcome of the ONR’s request for an MMPA IHA in connection with conducting active acoustic testing activities, including the use of very low-frequency, low-frequency, and mid-frequency acoustic transmissions throughout the ARA study area. If the proposed IHA is issued, that would be the fifth time NMFS has authorized take of marine mammals associated with the ONR’s activities (following authorizations for activities in 2018, 2019, 2020 and 2021).

VI. Mitigation and Monitoring:
NMFS does not authorize the ONR’s Arctic research activities, however, NMFS does propose to authorize the incidental take of marine mammals under its jurisdiction in connection with these activities and prescribes, where applicable, the methods of taking and other means of effecting the least practicable impact on the species and stocks and their habitats. NMFS’ issuance of this IHA would thus be conditioned upon reporting requirements and the implementation of mitigation and monitoring designed to reduce impacts to marine mammals to the level of least practicable impact, as required under section 101(a)(5)(D) of the MMPA. These conditions are summarized below and are described in detail in Chapter 5 of the 2022 OEA as well as the proposed IHA.

Ships operated by or for the U.S. Navy, including those associated with the Proposed Action, would have personnel assigned to stand watch at all times, day and night, when moving through the water or using active acoustic sources. All watch personnel complete U.S. Navy Marine Species Awareness Training (MSAT). Personnel on watch will employ visual search techniques, including the use of binoculars and an MSAT scanning method.

Measures to avoid take during ARA include:
- While in transit, ships shall be alert at all times, use extreme caution, and proceed at a "safe speed" to avoid collisions with marine mammals.
- Ships will avoid approaching marine mammals head on and will maneuver to maintain a mitigation zone of 457 m around observed whales, and 183 m around all other marine mammals, providing it is safe to do so during ice free waters. If a marine mammal other than a whale approaches the vessel and one maneuver to steer away from the animal has already been conducted, no further action will be taken. Avoidance measures will continue for any observed whales to maintain a 457 m mitigation zone.
- Visual observation will start 15 minutes prior to deployment of acoustic sources and continue during deployment within a mitigation zone of 55 m around the deployed acoustic mooring. If a marine mammal is visually detected within the mitigation zone, deployment will stop. Deployment will re-commence if the animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based upon its course and speed, or the mitigation zone is clear of any additional sightings of the animal for a period of 15 minutes.
Mitigation zones for active acoustic sources will be established at 183 m from the source. If a marine mammal is visually detected in the mitigation zone, active acoustic testing will stop. Active transmission will re-commence if the animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based upon its course and speed and relative motion between the animal and the source, the mitigation zone is clear of any additional sightings of the animal for a period of 30 minutes, or the vessel has transited more than 366 m beyond the location of the last sighting of the animal.

DETERMINATION

The CEQ NEPA regulations, 40 CFR § 1501.6, direct an agency to prepare a FONSI when the agency, based on the EA for the proposed action, determines not to prepare an EIS because the action will not have significant effects. In view of the information presented in this document and the analysis contained in the supporting OEA prepared for the Arctic Research Activities in the Beaufort and Chukchi Seas 2022-2025, it is hereby determined that the ONR Arctic Research Activities will not significantly impact the quality of the human environment. The ONR Arctic Research Activities in the Beaufort and Chukchi Seas 2022-2025 OEA is hereby incorporated by reference. In addition, all beneficial and adverse impacts of the proposed action as well as mitigation measures have been evaluated to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

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