



## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

[Docket No. FWS-R7-ES-2025-1100; FXES111607MRG01-256-FF07CAMM00]

### Marine Mammals; Proposed Incidental Harassment Authorization for Polar Bears in the Beaufort Sea and Arctic Ocean; Ice Exercise Activities by the U.S. Navy

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of receipt of application; proposed incidental harassment authorization; draft environmental assessment; request for comments.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, in response to a request under the Marine Mammal Protection Act of 1972 (MMPA), as amended, from the U.S. Department of the Navy (Navy), propose to authorize nonlethal, incidental take by harassment of Southern Beaufort Sea polar bears (*Ursus maritimus*) from February 18, 2026, to April 18, 2026. The applicant requested this authorization for take by harassment that may result from activities associated with the mobilization, operation, and demobilization of a temporary ice camp, aircraft transportation, submarine training and testing, and research in the Beaufort Sea and Arctic Ocean. This proposed authorization, if finalized, would be for up to six takes of polar bears by Level B harassment only. No take by injury or mortality is requested, expected, or proposed to be authorized. The Navy's activities are considered military readiness activities pursuant to the MMPA. We invite comments on the proposed incidental harassment authorization and the accompanying draft environmental assessment from the public, Tribes, and local, State, and Federal agencies.

**DATES:** Comments must be received by [INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

**ADDRESSES:** *Document Availability:* You may view this proposed incidental harassment authorization, the application package, supplemental information, draft environmental

assessment, and the list of references cited herein at <https://www.regulations.gov> under Docket No. FWS–R7–ES–2025–1100. Alternatively, you may request these documents from the person listed under **FOR FURTHER INFORMATION CONTACT**.

*Comment Submission:* You may submit comments on the proposed authorization by one of the following methods:

- *Electronic submission:* Go to the Federal eRulemaking Portal: <https://www.regulations.gov>. In the Search box, enter FWS–R7–ES–2025–1100, which is the docket number for this rulemaking action. Then, click on the “Search” button. On the resulting page, in the panel on the left side of the screen under the “Document Type” heading, check the Notice box to locate this document. You may submit a comment by clicking on “Comment.” Comments must be submitted to <https://www.regulations.gov> before 11:59 p.m. (Eastern Time) on the date specified in **DATES**.
- *U.S. mail:* Public Comments Processing, Attn: Docket No. FWS–R7–ES–2025–1100, U.S. Fish and Wildlife Service, MS: PRB (JAO/3W), 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments at <https://www.regulations.gov>. You may request that we withhold personal identifying information from public review; however, we cannot guarantee that we will be able to do so. See **Request for Public Comments** for more information.

**FOR FURTHER INFORMATION CONTACT:** Stephanie Burgess, by email at [r7mmmregulatory@fws.gov](mailto:r7mmmregulatory@fws.gov), by telephone at 907–786–3800, or by U.S. mail at U.S. Fish and Wildlife Service, MS 341, 1011 East Tudor Road, Anchorage, AK 99503. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

## **SUPPLEMENTARY INFORMATION:**

### **Background**

Section 101(a)(5)(D) of the Marine Mammal Protection Act of 1972 (MMPA; 16 U.S.C. 1361 *et seq.*), as amended by the National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136), authorizes the Secretary of the Interior (Secretary) to allow, upon request for military readiness activities, the incidental, but not intentional, taking by harassment of marine mammals during a period of not more than 1 year. The Secretary has delegated authority for implementation of the MMPA to the U.S. Fish and Wildlife Service (FWS or we). The FWS shall allow this incidental taking by harassment if we make findings that the total of such taking for the period of up to 1 year:

(1) will have a negligible impact on the species or stock; and

(2) will not have an unmitigable adverse impact on the availability of the species or stock for taking for subsistence use by Alaska Natives.

If the requisite findings are made, we issue an authorization that sets forth the following, where applicable:

(a) permissible methods of taking;

(b) means of effecting the least practicable adverse impact on the species or stock and its habitat and the availability of the species or stock for subsistence uses; and

(c) requirements for monitoring and reporting of such taking by harassment, including, in certain circumstances, requirements for the independent peer review of proposed monitoring plans or other research proposals.

The term “take” means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill, any marine mammal. “Harassment” for military readiness activities means any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild (the MMPA defines this as “Level A harassment”), or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural

behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered (the MMPA defines this as “Level B harassment”).

The terms “negligible impact” and “unmitigable adverse impact” are defined in 50 CFR 18.27 (i.e., regulations governing small takes of marine mammals incidental to specified activities) as follows: “Negligible impact” is 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. “Unmitigable adverse impact” means an impact resulting from the specified activity: (1) that is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by (i) causing the marine mammals to abandon or avoid hunting areas, (ii) directly displacing subsistence users, or (iii) placing physical barriers between the marine mammals and the subsistence hunters; and (2) that cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.

The term “least practicable adverse impact” is not defined in the MMPA or its enacting regulations. In processing requests for IHAs, we ensure the least practicable adverse impact by requiring mitigation measures that are effective in reducing the impact of specified activities, but not so restrictive as to make specified activities unduly burdensome or impossible to undertake and complete. For IHAs concerning military readiness activities, the MMPA requires consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. Before making the required determination, the FWS consults with the Department of Defense regarding personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

If the requisite findings are made, we shall issue an IHA, which shall set forth the following, where applicable: (i) permissible methods of taking; (ii) other means of effecting the least practicable adverse impact on the species or stock and its habitat, paying particular attention

to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for subsistence uses by coastal-dwelling Alaska Natives (if applicable); and (iii) requirements for monitoring and reporting take by harassment.

### **Summary of Request**

On April 7, 2025, the FWS received a request from the U.S. Department of the Navy (Navy) for authorization to take by nonlethal, incidental harassment of Southern Beaufort Sea (SBS) stock polar bears (*Ursus maritimus*) during a military readiness activity. The Navy's request identified mobilization, operation, and demobilization of a temporary ice camp, aircraft transportation, submarine training and testing, and research activities in the Beaufort Sea and Arctic Ocean for the period February 9, 2026 through April 9, 2026, as activities that could incidentally take polar bears. Through a consultative process, the FWS requested and the Navy provided additional information on their proposed activities. The Navy submitted a revised request on August 21, 2025. The FWS deemed the Navy's revised request adequate and complete on August 21, 2025 (hereafter referred to as the "Request").

### **Description of Geographic Region and Specified Activities**

The Navy's specified activities will occur in a geographic region that extends north from Deadhorse, Alaska (70.19°N), to the Arctic Ocean basin near the North Pole (90.00°N). A temporary ice camp will be established approximately 185 kilometers (km) (100 nautical miles [nm]) to 370 km (200 nm) north of Prudhoe Bay in the Beaufort Sea. The exact location of the ice camp cannot be identified in advance due to sea ice conditions required to establish the ice camp. Most submarine training and testing activities will occur near the ice camp; however, some submarine training and testing activities may occur throughout the deep Arctic Ocean basin near the North Pole (figure 1 below).

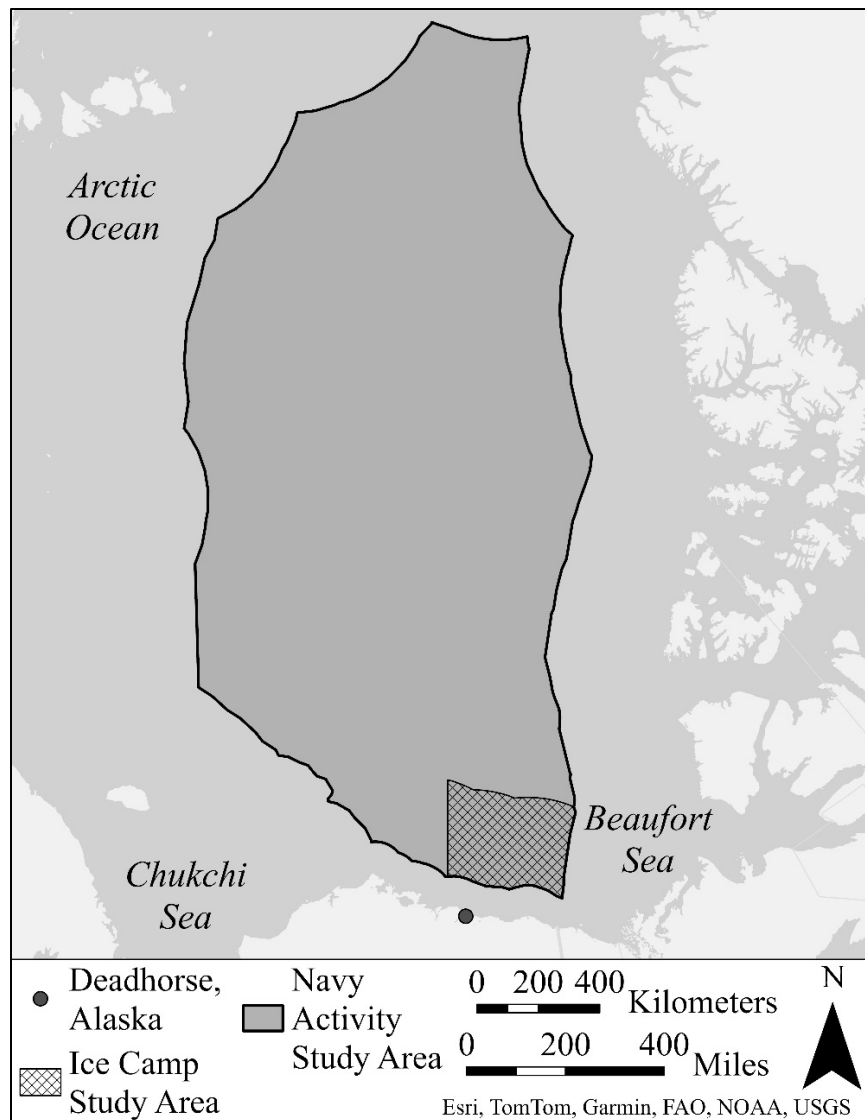


Figure 1—Geographic region of the U.S. Navy request for incidental harassment authorization for polar bears in 2026 under the Marine Mammal Protection Act.

The specified activities consist of mobilization, operation, and demobilization of a temporary ice camp, aircraft transportation, submarine training and testing, and research activities.

#### *Reconnaissance Flights and Mobilization*

In mid-February, reconnaissance flights originating from Deadhorse will be conducted for a maximum of five days over an area approximately 70,374 square kilometers (km<sup>2</sup>) (27,172 square miles [mi<sup>2</sup>]) in the Beaufort Sea to determine the location of the ice camp.

Reconnaissance flights using a single or twin otter fixed-wing aircraft will be flown at altitudes between 305 meters (m) (1,000 feet [ft]) and 610 m (2,000 ft) for initial visual observations of

the sea ice and descend to a minimum altitude of 30 m (100 ft) during closer inspections of sea ice conditions. Reconnaissance aircraft may also land on the sea ice to allow personnel to further inspect the sea ice conditions on foot. A maximum of 12 landings may occur during reconnaissance flights. After the ice camp location is determined, the Navy will mobilize equipment, supplies, and personnel from Deadhorse to the ice camp location. A maximum of nine round trip flights are anticipated each day for approximately six days during mobilization. Transportation flights will be flown at a minimum altitude of 457 m (1,500 ft).

### *On-Ice Activities*

Ice camp operations will occur for approximately four weeks between mid-February and early-April, 2026. The ice camp will cover an area approximately 2.0 km<sup>2</sup> (0.8 mi<sup>2</sup>) and consist of 15 to 20 tents/structures, a primary aircraft runway, a backup aircraft runway for emergency use, and a helipad. A hydrophone array will be installed around the ice camp. Hydrophones will be deployed on the ice and extend to approximately 30 m (98 ft) below the ice. Recovery of the hydrophones is planned; however, hydrophones may not be recovered if an emergency demobilization of the ice camp occurs or if the hydrophones are frozen in place and cannot be recovered.

Snowmobiles will be used to transport personnel and equipment to support research activities around the ice camp. Snowmobiles will travel a maximum of 3.2 km (2 mi) from the ice camp and cover an area approximately 32.5 km<sup>2</sup> (12.5 mi<sup>2</sup>). One snowmobile trip will occur each day for the approximate 4-week ice camp operation period. Four to six snowmobiles will be used during the trips. Additionally, all-terrain tracked vehicles may be used to support runway construction and expeditionary forces within the ice camp area. The all-terrain tracked vehicles will cover an area approximately 2.0 km<sup>2</sup> (0.8 mi<sup>2</sup>). All-terrain tracked vehicle trips may occur each day for the approximate 4-week ice camp operation period. Unmanned on-ice vehicles (i.e., electric snowmobile) may be tested around the ice camp and will always be within sight of personnel during testing operations.

### *Aircraft Activities*

Aircraft will transport equipment, supplies, and personnel from Deadhorse to the ice camp and support research activities. One to three round trip flights will occur each day during the approximate 4-week ice camp operation period. A maximum of 6 flight hours is anticipated for large military transport aircraft. These large military transport aircraft may drop equipment and supplies by parachute at the ice camp. A maximum of 648 flight hours is anticipated for small fixed-wing aircraft. A maximum of 192 flight hours is anticipated for small rotary-wing aircraft. Unmanned aerial systems (UAS) may be used for testing and supporting research activities near the ice camp. Rotary-wing UAS activities may cover an area approximately 203.4 km<sup>2</sup> (78.5 mi<sup>2</sup>) around the ice camp and will always be within sight of personnel during operations. A maximum of 36 flight hours is anticipated for UAS activities.

### *In-Water Activities*

In-water activities consist of submarine training and testing, unmanned underwater vehicle use, water sample collection, deployment of buoys, and use of underwater acoustic communication sources (e.g., echosounders, transducers). Submarine training and testing activities generally consist of safety maneuvers and active sonar use to test the performance of the equipment in an Arctic environment. Submarine-launched torpedo exercises may be conducted, and the torpedoes used for these exercises are non-explosive. Submarine training and testing activities will not occur on or near the Continental Shelf. Submarines may surface in first-year ice or near polynyas. The submarines are anticipated to surface approximately five times near the ice camp during the project period. Other in-water activities will be conducted within the ice camp. These in-water activities will involve underwater active acoustic transmissions. Information on the parameters for scientific devices with active acoustics used during the Navy's activities are provided in the Navy's Request.

### *Demobilization*

Demobilization of the ice camp will likely occur in late March or early April. All equipment, supplies, waste, and personnel will be transported back to Deadhorse by aircraft. A maximum of nine round trip flights are anticipated each day for approximately 7 days during demobilization. Transportation flights will be flown at a minimum altitude of 457 m (1,500 ft).

### **Description of Marine Mammals in the Geographic Region**

Polar bears are the only marine mammal species under the FWS's jurisdiction likely to be found within the geographic region. The vast majority of the Navy's project activities will occur within the range of the SBS polar bear stock. It is possible that the Navy's submarine activities may occur within the range of the Chukchi/Bering Seas (CBS) polar bear stock; however, these activities will occur under the sea ice at depths greater than a polar bear can dive, and, therefore, we do not anticipate any type of take to occur. Therefore, this proposed IHA focuses on potential impacts to the SBS polar bear stock. Information on the range, stocks, biology, and climate change impacts on polar bears is included in supplemental information, which can be found as described above in **ADDRESSES**.

### **Potential Impacts of the Specified Activities on Marine Mammals**

#### *Surface-Level Impacts on Polar Bears*

Disturbance impacts on polar bears are influenced by the type, duration, intensity, timing, and location of the source of disturbance. Disturbance from the specified activities would originate primarily from mobilization, operation, and demobilization of a temporary ice camp, aircraft transportation, submarine training and testing, and research activities. The noises, sights, and smells produced by these activities could elicit variable responses from polar bears, ranging from avoidance to attraction. When disturbed by noise, animals may respond behaviorally by walking, running, or swimming away from a noise source, or physiologically via increased heart rates or hormonal stress responses (Harms et al. 1997; Tempel and Gutierrez 2003). However, individual response to noise disturbance can be based on previous interactions, sex, age, and

maternal status (Anderson and Aars 2008; Dyck and Baydack 2004). Noise and odors could also attract polar bears to work areas. Attracting polar bears to these locations could result in human–polar bear interactions, unintentional harassment, intentional hazing, or possible lethal take in defense of human life. This proposed IHA, if finalized, would authorize only the nonlethal, incidental, unintentional take of polar bears that may result from the specified activities and would require mitigation measures to manage attractants in work areas and reduce the risk of human–polar bear interactions.

### *Human–Polar Bear Interactions*

Polar bear interaction plans, personnel training, attractants management, and polar bear monitoring are mitigation measures used to reduce human–polar bear interactions and minimize the risks to humans and polar bears when interactions occur. Efficient management of attractants (e.g., human food, garbage) can prevent polar bears from associating humans with food, which lowers the risk of human–polar bear interactions (Atwood and Wilder 2021). The Navy’s polar bear interaction plan details the policies and procedures that they will implement to avoid attracting and interacting with polar bears and to minimize potential impacts to polar bears. The interaction plan also details how to respond to the presence of polar bears, the chain of command and communication, and required training for personnel. Information gained from monitoring polar bears near human activities can be useful for better understanding polar bear distribution, behavior, and interactions with humans. The Navy may use observers and thermal cameras to monitor for polar bears. The mitigation measures that will be implemented by the Navy will minimize the risk of possible human–polar bear interactions during the specified activities.

### *Effects of Aircraft Overflights on Polar Bears*

Polar bears experience increased noise and visual stimuli when fixed-wing aircraft or rotary-wing aircraft fly above them, which may elicit a biologically significant behavioral response. Sound frequencies produced by aircraft will likely fall within the hearing range of polar bears (Nachtigall et al. 2007) and will be audible to polar bears during flyovers or when

operating in proximity to polar bears. Polar bears likely have acute hearing, with previous sensitivities demonstrated between 1.4 and 22.5 kilohertz (kHz) (tests were limited to 22.5 kHz, Nachtigall et al. 2007). When exposed to high-energy sound, this hearing range may become impaired temporarily (called temporary threshold shift, or TTS) or permanently (called permanent threshold shift, or PTS). A TTS is a noise-induced threshold shift in hearing sensitivity that fully recovers over time (Finneran 2015). A PTS occurs when noise exposure causes damage to hair cells within the inner ear system (Ketten 2012). Although the effects of PTS are, by definition, permanent, PTS does not equate to total hearing loss.

Sound exposure thresholds incorporate two metrics of exposure: the peak level of instantaneous exposure likely to cause PTS, and the cumulative sound exposure level ( $SEL_{CUM}$ ) during a 24-hour period. They also include weighting adjustments for the sensitivity of different species to varying frequencies. PTS-based injury criteria were developed from theoretical extrapolation of observations of TTS detected in lab settings during sound exposure trials (Finneran 2015). Species-specific TTS and PTS thresholds have not been established for polar bears at this time, but TTS and PTS thresholds have been established for the general group “other marine carnivores”, which includes polar bears (Southall et al. 2019). Through a series of systematic modeling procedures and extrapolations, Southall et al. (2019) generated TTS and PTS thresholds for both in-air and underwater sound (table 1, table 2 below).

Table 1—Temporary threshold shift (TTS) and permanent threshold shift (PTS) thresholds for in-air sounds established by Southall et al. (2019) through modeling and extrapolation for “other marine carnivores”, which includes polar bears.

	TTS			PTS		
	Non-impulsive	Impulsive		Non-impulsive	Impulsive	
	$SEL_{CUM}$	$SEL_{CUM}$	Peak SPL	$SEL_{CUM}$	$SEL_{CUM}$	Peak SPL
Air	157	146	170	177	161	176

Note: Values are weighted for other marine carnivores’ hearing thresholds and given in cumulative sound exposure level ( $SEL_{CUM}$  dB re 20 $\mu$ Pa in air) for impulsive and non-impulsive sounds, and unweighted peak sound pressure level (SPL) in air (dB re 20 $\mu$ Pa) for impulsive sounds only.

Federal Aviation Administration test aircraft produced sound at all frequencies measured (50 hertz to 10 kHz) (Healy 1974). At frequencies centered at 5 kHz, jets flying at 300 m (984 ft)

produced 1/3 octave band noise levels of 84 to 124 dB, propeller-driven aircraft produced 75 to 90 dB, and helicopters produced 60 to 70 dB (Richardson et al. 1995). Thus, the frequency and level of airborne sounds typically produced by aircraft are unlikely to cause TTS or PTS unless polar bears are very close to the sound source.

Although neither TTS nor PTS is anticipated during the specified activities, aircraft overflights have the potential to elicit biologically significant behavioral responses from polar bears. Exposure to aircraft overflights is expected to result in short-term behavior changes, such as ceasing to rest, walking, or running, and, therefore, has the potential to be energetically costly. Polar bears observed during intentional aircraft overflights conducted to study impacts of aircraft on polar bear responses, with an average flight altitude of 143 m (469 ft), exhibited biologically meaningful behavioral responses during 66.6 percent of aircraft overflights. These behavioral responses were significantly correlated with the aircraft's altitude, the polar bear's location (e.g., coastline, barrier island), and the polar bear's activity (Quigley 2022; Quigley et al. 2024). Polar bears associated with dens exhibited various responses that ranged from increased head movement and observation of the disturbance to the initiation of rapid movement and/or den abandonment when exposed to aircraft flying at altitudes 150 m (492 ft) or less (Larson et al. 2020). Aircraft activities can impact polar bears across all seasons; however, aircraft have a greater potential to disturb both individuals and groups of polar bears on land during the summer and fall. These onshore polar bears are primarily fasting or seeking alternative terrestrial foods (Cherry et al. 2009; Griffen et al. 2022), and polar bear responses to aircraft overflights may result in metabolic costs to their limited energy reserves. To reduce potential disturbance of polar bears during aircraft activities, mitigation measures, such as minimum flight altitudes over polar bears and their frequently used areas and flight restrictions around known polar bear aggregations, will be implemented when it is safe to do so during aircraft activities.

Underwater Sound

Noise exposure criteria for identifying underwater noise levels capable of causing Level A harassment (injury) to marine mammal species, including polar bears, have been established using the same methods as those used by the National Marine Fisheries Service (NMFS) (Southall et al. 2019). These criteria are based on estimated levels of sound exposure capable of causing a PTS (NMFS 2018). Southall et al. (2019) developed TTS thresholds for polar bears, which are included in the “other marine carnivores” category, of 188 dB SEL<sub>CUM</sub> for impulsive underwater sounds and 199 dB SEL<sub>CUM</sub> for nonimpulsive underwater sounds. Based on these analyses, Southall et al. (2019) predict that PTS for polar bears will occur at 232 dB peak sound pressure level or 203 dB SEL<sub>CUM</sub> for impulsive underwater sound and 219 dB SEL<sub>CUM</sub> for nonimpulsive underwater sound (table 2).

Table 2—Temporary threshold shift (TTS) and permanent threshold shift (PTS) thresholds for in-water sounds established by Southall et al. (2019) through modeling and extrapolation for “other marine carnivores”, which includes polar bears.

	TTS			PTS		
	Non-impulsive	Impulsive		Non-impulsive	Impulsive	
	SEL <sub>CUM</sub>	SEL <sub>CUM</sub>	Peak SPL	SEL <sub>CUM</sub>	SEL <sub>CUM</sub>	Peak SPL
Water	199	188	226	219	203	232

Note: Values are weighted for other marine carnivores’ hearing thresholds and given in cumulative sound exposure level (SEL<sub>CUM</sub> dB re 1µPa) for impulsive and non-impulsive sounds, and unweighted peak sound pressure level (SPL) in water (dB 1µPa) for impulsive sounds only.

The NMFS (2018) Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing does not identify thresholds for avoidance of Level B harassment, but NMFS has adopted a 160-dB threshold for Level B harassment from exposure to impulsive noise and a 120-dB threshold for nonimpulsive noise (High Energy Seismic Survey Team 1999; NMFS 2018). These thresholds were developed from observations of mysticete (baleen) whales responding to airgun operations (e.g., Malme et al. 1983; Malme and Miles 1983; Richardson et al. 1986, 1995).

We have evaluated the NMFS-recommended Level B harassment thresholds and determined that the threshold of 120 dB for nonimpulsive noise is not applicable to polar bears. The 120-dB threshold is based on studies in which gray whales (*Eschrichtius robustus*) were exposed to experimental playbacks of industrial noise (Malme et al. 1983; Malme and Miles 1983). During these playback studies, southern sea otter (*Enhydra lutris nereis*) responses to industrial noise were also monitored (Riedman 1983, 1984). While gray whales exhibited avoidance to industrial noise at the 120-dB threshold, there was no evidence of disturbance reactions or avoidance in southern sea otters. Southall et al. (2019) includes sea otters and polar bears in the same marine mammal hearing group of “other marine carnivores”, so a potential polar bear response to 120-dB underwater sound is likely more similar to that of sea otters than gray whales. Thus, given the differences in hearing and behavior between “other marine carnivores” and “low frequency cetaceans”, the NMFS 120-dB threshold based on gray whale behavior is not appropriate for predicting behavioral responses for polar bears. Based on the best available scientific information about other marine carnivores, which include polar bears, the FWS has set 160 dB of received underwater sound—for both impulsive and nonimpulsive sound sources—as a threshold for take by Level B harassment.

The NMFS (2024) has recently updated their Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing utilizing the work of Southall et al. (2019). The FWS is evaluating the new auditory injury criteria from NMFS to determine whether they are appropriate for FWS trust species. Pending the outcome of those evaluations, the FWS will continue to use the previous version of the technical guidance (NMFS 2018) in our assessments of potential Level A harassment via underwater sound.

#### In-Water Activity Impacts on Polar Bears

During the specified activities, in-water sources of sound, such as submarine active sonar use and in-water device data collection activities, are unlikely to disturb polar bears. Submarine training and testing activities will occur under the sea ice at depths greater than a polar bear can

dive and during a timeframe when sea ice extent and concentration are at a maximum during the year. Arctic sea ice extent, which is the area of ocean with at least 15 percent sea ice concentration, generally increases throughout February, reaches its maximum extent in March, and begins decreasing in April (National Snow and Ice Data Center 2025). The maximum extent and concentration of sea ice over the project area will limit polar bears' access to open water and reduce the likelihood of polar bears being exposed to the Navy's submarine training and testing activities. Other in-water activities will occur within the ice camp and under the sea ice. If a polar bear were to enter the ice camp, these in-water activities will cease until the polar bear left the ice camp. This measure would prevent polar bears from being exposed to in-water noise from these activities.

If polar bears are exposed to in-water noise from the Navy's activities, we anticipate that the polar bears' exposure time to in-water noise would be limited. While polar bears swim and hunt in water, they spend less time in the water than most marine mammals. Stirling (1974) reported that polar bears observed near Devon Island, Canada during late July and early August spent 4.1 percent of their time swimming and an additional 0.7 percent engaged in aquatic stalking of prey. More recently, results from the application of tags equipped with time-depth recorders indicate that aquatic activity of polar bears is greater than was previously reported. Lone et al. (2018) reported 75 percent of polar bears swam daily during open-water months, with individuals spending an average of 9.4 percent of their time in the water throughout July. There was no significant difference in the amount of time spent in the water between polar bears that used coastal habitat and polar bears that used offshore pack-ice habitat; however, the sample size for comparison was small, and polar bears exhibited large individual variation in their aquatic behavior. While polar bears typically swim with their ears above water, there are occasions when a polar bear may dive and therefore have its ears below the surface (Lone et al. 2018).

The behavior of both polar bears in water or on ice may be impacted by the presence of humans and equipment used during the specified in-water activities. During the open-water

season in 2012, Shell USA, Inc. (Shell) vessels encountered a few polar bears swimming in ice-free water more than 113 km (70 mi) offshore in the Chukchi Sea. In those instances, the polar bears were observed either to swim away from or approach the Shell vessels, sometimes swimming around a stationary vessel before leaving. In at least one encounter, a polar bear approached, touched, and investigated a stationary vessel from the water before swimming away. We anticipate that polar bears that encounter the Navy's submarines at the water's surface during deployment, surfacing, and recovery may have an evasive or curious response similar to the polar bears in these reports. However, neither curious investigation nor swimming away are likely to result in the polar bear diving, which is typically seen during hunting.

While exposure to high levels of underwater sound may cause changes in behavior, temporary or permanent changes in hearing sensitivity, or discomfort, polar bears do not typically swim with their heads under water. Additionally, the submarine training and testing activities will occur under the sea ice at depths greater than a polar bear can dive and during a timeframe when sea ice extent and concentration are at a yearly maximum. Though polar bears have been observed in open water miles from the ice edge or ice floes, these encounters are relatively rare (although the frequency of such observations may increase due to sea ice change). If polar bears encounter the Navy's in-water operations, the effects of such encounters would likely include no more than short-term behavioral disturbance.

#### *Effects to Denning Polar Bears*

Known polar bear dens around industrial infrastructure, discovered opportunistically and/or during planned surveys for tracking marked polar bears and detecting polar bear dens, are monitored by the FWS. However, these sites are only a small percentage of the total active polar bear dens for the SBS stock in any given year. If potential den locations are identified during project activities, personnel who are operating under an incidental take authorization are required to coordinate with the FWS to avoid activity or potential disturbance within a designated distance of potential polar bear dens. However, an unknown polar bear den may be encountered

during the Navy's activities. In instances when a previously unknown den is discovered near human activity, the FWS has provided guidance to personnel to implement mitigation measures such as establishing an activity exclusion zone around the den and 24-hour monitoring of the den site. The Navy will avoid establishing their ice camp in areas with pressure ridges and snow drifts greater than 1.5 m (5 ft) deep that may support polar bear dens as practicable and implement mitigation measures to minimize disturbance to a den.

The responses of denning polar bears to disturbance and the consequences of these responses can vary throughout the denning process, leading to different levels of potential take. We divide the denning period into four stages when considering impacts of disturbance: den establishment, early denning, late denning, and post-emergence; definitions and descriptions are provided by Woodruff et al. (2022) and are also located in the 2021–2026 Beaufort Sea incidental take regulations (ITR) (90 FR 27398, June 26, 2025). The stage at which disturbance occurs defines the level of associated take (Level B harassment, Level A harassment, or lethal take) that either the female or cub(s) may experience, along with the probability of such take occurring (see *Denning Analysis* below).

#### *Impacts of the Specified Activities on Polar Bear Prey Species*

Information on the potential impacts of the specified activities on polar bear prey species is included in supplemental information, which can be found as described above in

#### **ADDRESSES.**

#### **Estimated Take**

##### *Definitions of Incidental Take under the MMPA*

Below we provide definitions of three types of take of polar bears. The FWS does not anticipate and is not authorizing either lethal take or Level A harassment as a part of this proposed IHA; however, the definitions of these take types are provided for context and background.

## Lethal Take

Human activity may result in biologically significant impacts to polar bears. In the most serious interactions (e.g., vehicle collision or running over an unknown den causing its collapse), human actions can result in polar bear mortality. Polar bears may be killed in situations where there is an imminent threat to human life, and polar bears have been accidentally killed during efforts to deter polar bears from a work area for safety and from direct chemical exposure (81 FR 52276, August 5, 2016), though the lethal take in these scenarios is not considered incidental. Unintentional disturbance of a female polar bear by human activity during the denning season may cause the female to abandon her den prematurely before the cubs are able to survive outside the den, which would result in incidental lethal take of the cubs.

## Level A Harassment

Human activity may result in the injury of polar bears. Level A harassment for military readiness activities is defined as any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild. Numerous actions can cause take by Level A harassment of polar bear cubs during the denning period, such as creating a disturbance that separates mothers from dependent cubs (Amstrup 2003), inducing early den emergence during the late denning period (Amstrup and Gardner 1994; Rode et al. 2018), instigating early departure from the den site during the post-emergence period (Andersen et al. 2024), or repeatedly interrupting the nursing or resting of cubs to the extent that it impacts the cubs' body condition. In these scenarios, a cub's likelihood of survival may be reduced as a result of the disturbance (i.e., the cub experiences a negative survival likelihood consequence).

## Level B Harassment

Level B harassment for military readiness activities means any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly

altered. Changes in behavior that disrupt biologically significant behaviors or activities for the affected animal are indicative of take by Level B harassment under the MMPA. Such reactions include, but are not limited to, the following:

- Fleeing (running or swimming away from a human or a human activity);
- Displaying a stress-related behavior such as jaw- or lip-popping, front leg stomping, vocalizations, circling, intense staring, or salivating;
- Abandoning or avoiding preferred movement corridors such as ice floes, leads, polynyas, a segment of coastline, or barrier islands;
- Using a longer or more difficult route of travel instead of the intended path;
- Interrupting breeding, sheltering, or feeding;
- Moving away at a fast pace (adult) and cubs struggling to keep up;
- Temporary, short-term cessation of nursing or resting (cubs);
- Ceasing to rest repeatedly or for a prolonged period (adults);
- Loss of hunting opportunity due to disturbance of prey; or
- Any interruption in normal denning behavior that does not cause injury, den abandonment, or early departure of the female with cubs from the den site.

This list is not meant to encompass all possible behaviors; other behavioral responses may be indicative of take by Level B harassment. Relatively minor changes in behavior such as the animal raising its head or temporarily changing its direction of travel are not likely to disrupt biologically important behavioral patterns, and the FWS does not view such minor changes in behavior as indicative of a take by Level B harassment. It is also important to note that eliciting behavioral responses that equate to take by Level B harassment repeatedly may result in Level A harassment.

### *Surface Interactions*

We analyzed take by Level B harassment for polar bears that may potentially be encountered and impacted during the Navy's mobilization, operation, and demobilization of a

temporary ice camp, aircraft transportation, submarine training and testing, and research activities within the geographic region.

### Impact Area

To assess the area of potential impact from the project activities, we calculate the area affected by project activities where harassment is possible. We refer to this area as an impact area. Behavioral response rates of polar bears to disturbances are highly variable, and data to support the relationship between distance to polar bears and disturbance are limited. Dyck and Baydack (2004) found sex-based differences in the frequencies of vigilance bouts, which involve an animal raising its head to visually scan its surroundings, by polar bears in the presence of vehicles on the tundra. However, in their summary of polar bear behavioral response to ice-breaking vessels in the Chukchi Sea, Smultea et al. (2016) found no difference between reactions of males, females with cubs, or females without cubs. During the FWS's coastal aerial surveys, 99 percent of polar bears that responded in a way that indicated possible Level B harassment (polar bears that were running when detected or began to run or swim in response to the aircraft) did so within 1.6 km (1 mi), as measured from the ninetieth percentile horizontal detection distance from the flight line. Similarly, Andersen and Aars (2008) found that female polar bears with cubs (the most conservative group observed) began to walk or run away from approaching snowmobiles at a mean distance of 1,534 m (0.95 mi). Thus, while future research into the reaction of polar bears to anthropogenic disturbance may indicate that a different zone of potential impact is appropriate, the current literature suggests that the 1.6-km (1.0-mi) impact area will encompass the vast majority of surface polar bear harassment events.

### Estimated Harassment from Surface Interactions

We estimated Level B harassment using spatio-temporally specific encounter rates derived from the U.S. Geological Survey (USGS) polar bear satellite location data in the Southern Beaufort Sea (Pagano et al. 2021) and temporally specific harassment rates derived in the 2021–2026 Beaufort Sea ITR (90 FR 27398, June 26, 2025) in conjunction with the specified

project activity information.

Polar bear encounter rates were determined by selecting SBS adult female polar bear locations that occurred within the project period (February–April) across years from 1986 to 2016 in the USGS polar bear satellite location dataset (Pagano et al. 2021). Based on these locations, we determined the number and proportion of SBS adult females that were located within the ice camp study area during the project period across years. We assumed that SBS adult female step selection patterns during the spring were similar to step selection patterns of SBS adult males and SBS subadults based on step selection comparisons across adult females, adult males, and subadults in the Chukchi Sea region (Wilson et al. 2022). Given this assumption, we estimated the number of SBS polar bears across sex and age classes that may occur within the ice camp study area during the project period. The proportion of SBS adult females from the USGS dataset that were located within the ice camp study area during the project period was multiplied by the SBS polar bear stock abundance estimate to obtain the estimated number of SBS polar bears within the ice camp study area during the project period. Encounter rates were calculated as the number of SBS polar bears encountered per square kilometer within the ice camp study area.

There is a limited number of polar bear observations from industrial monitoring reports within the ice camp study area. Consequently, we could not estimate polar bear harassment rates specifically within the ice camp study area. Harassment rates derived in the 2021–2026 Beaufort Sea ITR (86 FR 42982, August 5, 2021) were used to calculate the number of polar bears potentially harassed during the project activities. We used the median of the posterior probability distribution for our harassment rate instead of the upper 99 percent quantile that was used in the 2021–2026 Beaufort Sea ITR (86 FR 42982, August 5, 2021) to account for acts that disturb or are likely to disturb a marine mammal as stipulated in the definition of Level B harassment for military readiness activities. We used the harassment rate calculated for the ice season (0.29) to best match the time period of the specified project activities.

Table 3 provides the definition for each variable used in the formulas to calculate the number of potential harassment events.

Table 3—Definitions of variables used in harassment estimates of non-denning polar bears during specified project activities.

Variable	Definition
$B_{es}$	Polar bears encountered in an impact area for the entire project period
$a_c$	Project activity impact area
$r_o$	Occupancy rate
$e_{ci}$	Project ice season polar bear-encounter rate in polar bears/season
$S_p$	Proportion of the project period the area is occupied
$t_i$	Ice season harassment rate
$B_t$	Number of estimated Level B harassment events

As a part of their Request, the Navy provided the FWS with the estimated project activity areas that included the maximum expected human occupancy (i.e., rate of occupancy ( $r_o$ )) for the area of their specified activities (e.g., ice camp site, snowmobile trips) for the project period. Using the buffer tool in ArcGIS, we created a spatial file of a 1.6-km (1-mi) buffer around all activity areas. We binned the activity areas according to their occupancy rates by rounding them up into tenths (10 percent, 20 percent, etc.). We determined the impact area of each bin by first calculating the area within the buffers of 100 percent occupancy locations. We then removed the area of the 100 percent occupancy buffers from the project impact area and calculated the area within the 90 percent occupancy buffers. This iterative process continued until we calculated the area within all buffers.

Impact areas were multiplied by the encounter rate to obtain the number of polar bears expected to be encountered in the impact area for the project period ( $B_{es}$ ). Equation 1 provides an example of the calculation of polar bears encountered in the project ice season for an impact area in the project area.

$$B_{es} = a_c * e_{ci}$$

Equation 1

To generate the number of estimated Level B harassments for each impact area, we multiplied the number of polar bears in the impact area during the project period by the proportion of the project period the area is occupied, the rate of occupancy, and the harassment rate (equation 2).

$$B_t = B_{es} * S_p * r_o * t_i$$

Equation 2

The estimated total impact area for the Navy's on-ice activities is approximately 533.44 km<sup>2</sup> (205.96 mi<sup>2</sup>). The estimated polar bear encounter rate within the Navy's ice camp study area is approximately 0.0033 polar bears/km<sup>2</sup>. Using the above equations, we estimated that one polar bear would be taken by Level B harassment during the Navy's on-ice activities. While we estimated that only one polar bear may be harassed during the Navy's on-ice activities using the above equations, it is possible that personnel may encounter and harass a female with cubs (i.e., family group). When a female exhibits a disturbance response, the cubs will typically respond in a similar manner. Therefore, we conservatively rounded up our one polar bear estimate to three polar bears in order to account for the potential harassment of a family group with an average group size of three polar bears.

#### *Aircraft Impacts on Polar Bears*

Polar bears in the project area would likely be exposed to the visual and auditory stimulation associated with the applicant's fixed-wing and rotary-wing aircraft activities; however, impacts of these exposures are likely to be minimal and short term. Aircraft activities may cause disruptions in the normal behavioral patterns of polar bears that see or hear the aircraft, thus resulting in incidental Level B harassment. To reduce the likelihood that polar bears are disturbed by aircraft, the Navy has committed to multiple mitigation measures, such as minimum flight altitudes over polar bears and restrictions on sudden changes to aircraft movements and direction. With these measures in place, any disturbances to polar bears are expected to have no more than short-term, temporary, and minor impacts on individual polar

bears.

### Estimating Harassment Rates of Aircraft Activities

Harassment rates during aircraft activities were estimated using results from studies of fixed-wing aircraft and helicopter overflights (Quigley 2022; Quigley et al. 2024). In these studies, aerial searches along the northern coast of Alaska between Point Barrow and the western Canadian border were flown and polar bears were approached at different altitudes. Polar bears that did not exhibit behavioral changes consistent with harassment were then re-approached at progressively lower altitudes, reaching as low as 38 m (100 ft). Researchers recorded behavioral changes during these approaches and evaluated if and when Level B harassment occurred. Covariates examined were polar bear location (“barrier island” or “mainland”), initial behavior (“active” or “inactive”), group size, whether the polar bear belonged to a family group, and the number of previous overflights (i.e., how many times the group was re-approached to elicit a behavioral change). A Bayesian imputation approach accounted for polar bears that exhibited a behavioral change consistent with harassment on their first approach, thus lacking an identified altitude at which no harassment occurred due to a lack of a “non-harassment” observation. Their final model included location, activity level, and the number of previous overflights as predictors of the altitude at which a polar bear was harassed. For our aircraft impacts analysis, we used harassment rates estimated for active polar bears observed on barrier islands as they had the highest rates of harassment. We further assumed that no previous overflights were conducted. We provide harassment rates for the minimum flight altitudes submitted by the Navy for their aircraft activities and harassment rates for take-offs and landings at table 4.

Table 4—Harassment rates for fixed-wing aircraft and rotary-wing aircraft overflights.

Minimum flight altitude	Fixed-wing	Rotary-wing
Take-offs	>0.99	>0.99
Landings	>0.99	>0.99
15 m (50 ft)	0.99	>0.99
30 m (100 ft)	0.99	>0.99
152 m (500 ft)	0.71	>0.99
457 m (1,500 ft)	<0.01	0.05

Note: The harassment rates in this table are based on Quigley et al. 2024.

## Estimating Area of Impact for Aircraft Activities

For each category of the flight path (i.e., take-off, traveling segments, and landing), we calculated an impact area and duration of impact using flight hours provided in the Navy's Request. We used flight logs available through FlightAware (<https://www.flightaware.com>), a website that maintains flight logs in the public domain, to estimate impact areas and flight hours for take-offs and landings. We estimated a take-off distance of 2.41 km (1.5 mi) will be impacted for 10 minutes per take-off. We estimated a landing distance of 4.83 km (3 mi) per 305 m (1,000 ft) of altitude will be impacted for 10 minutes per landing. For traveling segments, the aircraft was treated as a traveling impact area. We used a hypothetical flight from the Deadhorse Airport to the northeastern corner of the ice camp study area, which would have the greatest potential impact of any flights in the ice camp study area. All flight segments were buffered by 1.6 km (1 mi), which is consistent with aircraft surveys conducted by the FWS and the USGS between August and October during most years from 2000 through 2014 (Schliebe et al. 2008; Atwood et al. 2015; Wilson et al. 2017). In these surveys, 99 percent of groups of polar bears that exhibited behavioral responses consistent with Level B harassment were observed within 1.6 km (1 mi) of the aircraft.

To calculate the total number of Level B harassment events estimated due to the specified activities, we calculated the number of flight hours for each flight category (i.e., take-offs, traveling segments, and landings). The Navy submitted the maximum number of flight hours for aircraft activities. These flight hours were then used to calculate the proportion of the project period that aircraft occupied their impact areas (i.e., take-off area, traveling segment area, and landing area). This proportion-of-project-period metric is equivalent to the occupancy rate ( $r_o$ ) generated for surface-level interaction harassment estimates. The total impact area for each of the flight categories was multiplied by the polar bear encounter rate to determine the number of polar bears expected in that area for the project period (i.e.,  $B_{es}$ , as seen in equation 1). This number was then multiplied by the proportion of the project period to determine the number of

polar bears expected in that area when flights are occurring, and by the harassment rate based on the minimum flight altitude to estimate the number of polar bears that may be harassed as a result of the flights (as seen in equation 2). We did not estimate any Level B harassment for flight hours at a minimum flight altitude in which the harassment rate was below 0.50 (e.g., traveling segments at 457 m flight altitude) to only account for acts that disturb or are likely to disturb a marine mammal as stipulated in the definition of Level B harassment for military readiness activities.

#### Estimated Harassment from Aircraft Activities

Using the approaches described above, we estimated the total number of polar bears expected to be harassed by the aircraft activities during the proposed IHA period as a total of one polar bear (rounded up from a fraction). We conservatively increased our one polar bear estimate to three polar bears in order to account for the average group size of a family group in case a family group is encountered during aircraft activities (table 5).

Table 5—Estimated takes by Level B harassment of polar bears in the project area as a result of aircraft activities during the proposed regulatory period.

Number of Level B harassments	Reconnaissance flights	Large military aircraft	Fixed-wing aircraft	Rotary-wing aircraft	UAS flights	Total
	<0.01	<0.01	<0.01	<0.01	<0.01	3*

\* We conservatively increased our one polar bear estimate (rounded up from a fraction) to three polar bears in order to account for the average group size of a family group in case a family group is encountered.

#### *Estimated Harassment from In-water Activities*

Some of the Navy’s in-water activities will involve underwater active acoustic transmissions, which have the potential to harass marine mammals underwater. We analyzed potential impacts to polar bears during the Navy’s in-water activities based on polar bear aquatic behavior information and the description of the Navy’s in-water activities. Polar bears exhibit seasonal variation in their aquatic behavior, with swimming occurring less often during winter and spring when ice cover is greater (Lone et al. 2018). Lone et al. (2018) reported that March was the month with the lowest mean time (2 percent) that polar bears spent in the water. Polar

bears stay at the water's surface most of the time when they are swimming (Lone et al. 2018) and typically swim with their ears above water. While polar bears can dive up to 13.9 m (45.6 ft), most polar bears seldom dive beyond 3 to 4 m (9.8 to 13.1 ft). Polar bear diving behavior is likely associated with aquatic stalking of seals and accessing underwater resources such as carcasses and seaweed (Stirling 1974, Lone et al. 2018). Based on this information and the low polar bear encounter rate (0.0033 polar bear/km<sup>2</sup>) in the ice camp study area, we anticipate very few polar bears to be in the project area with their heads underwater during the February–April project period, when polar bears are reported to spend less time swimming (Lone et al. 2018).

The Navy estimated that the areas of increased sound (>160 dB re 1 μPa) within the hearing range of polar bears will be up to 1 km (0.6 mi) away from sound sources used during submarine-launched torpedo exercises and up to 0.5 km (0.3 mi) away from sound sources used during in-water activities within the ice camp. Considering the small ensonified area, the low polar bear encounter rate (0.0033 polar bear/km<sup>2</sup>) on the ice in the ice camp study area, and the low likelihood that a polar bear will be swimming with its head under water within hearing range of the Navy's in-water activities, we do not anticipate hearing threshold shifts for polar bears or behavioral responses resulting from underwater noise produced during the Navy's in-water activities. Additionally, submarine activities will occur at depths greater than a polar bear can dive. Unmanned underwater vehicle activities, in-water device data collection activities, and underwater acoustic communication activities will occur under the ice within the ice camp, and these activities will be halted if a polar bear is observed near the ice camp. Therefore, the FWS does not anticipate any harassment of polar bears from the Navy's in-water activities during the project period.

### *Denning Analysis*

The Navy's on-ice activities are the only potential source of impacts to denning polar bears. We determined the estimated number of polar bear dens in the ice camp study area based on the estimated number of dens that occur on sea ice (Patil et al. 2022) and the proportion of sea

ice dens that may occur in the ice camp study area based on a USGS empirical dataset of locations of satellite-tagged female polar bears (Pagano et al. 2021). The SBS stock is estimated to have a median of 123 dens per year (95 percent posterior credible interval = 69–199 dens), of which 44 percent are estimated to occur on sea ice (Patil et al. 2022). Based on this information, we estimated the number of dens that occur on sea ice annually for the SBS stock by multiplying the number of dens per year by the proportion of dens on sea ice (equation 3):

$$123_{\text{dens}} * 0.440_{\text{prop. sea ice dens}} = 54.120 \text{ sea ice dens}$$

Equation 3

We estimated the number of sea ice dens expected to occur within the ice camp study area by multiplying the number of sea ice dens by the proportion of satellite-tagged females from the USGS dataset (Pagano et al. 2021) that were within the ice camp study area during the project period from 1986 through 2016 (equation 4).

$$54.120_{\text{sea ice dens}} * 0.409_{\text{prop. ice camp females}} = 22.140 \text{ dens within ice camp study area}$$

Equation 4

The estimated number of dens in the ice camp study area was then divided by the area (km<sup>2</sup>) of the ice camp study area to obtain a den encounter rate for the project period (equation 5).

$$22.140_{\text{ice camp study area dens}} / 113,927_{\text{ice camp study area km}^2} = 0.000194 \text{ dens/km}^2 \text{ within ice camp study area}$$

Equation 5

The den encounter rate was then multiplied by the Navy’s on-ice activity impact area to determine the number of dens expected in that impact area for the project period (i.e.,  $B_{es}$ , as seen in equation 1). Based on the FWS’s analysis of 42 case studies of denning polar bear responses to human activity, the impact area in which denning polar bears could exhibit a disturbance response if exposed to human activity was estimated as 805 m (0.5 mi) around the den site during the early denning period and 1.6 km (1 mi) around the den site during the den establishment, late denning, and post-emergence periods (90 FR 2718, January 13, 2025). We

estimated that 0.070 den may be encountered in the Navy’s on-ice activity impact area during the early denning period and 0.104 den may be encountered in the impact area during the den establishment, late denning, and post-emergence periods.

Based on our den encounter estimates, we determined the number of cubs that may experience lethal take, Level A harassment, and Level B harassment, and the number of females that may experience Level B harassment as a result of the Navy’s on-ice activities. We calculated probabilities of a den exposure resulting in the types of harassment of denning polar bears from our analysis of 42 case studies of denning polar bear responses to human activity (table 6 below). We provide two sets of harassment probabilities for the post-emergence period. The first (Post-emergence case 1) is the set of probabilities when a den has not been disturbed (i.e., experienced harassment) during the late denning period. The second (Post-emergence case 2) is the set of probabilities for a den that was disturbed during the late denning period (Rode et al. 2018, Andersen et al. 2024).

Table 6—Probability that an exposure elicited a response by denning polar bears that would result in no take, Level B harassment, Level A harassment, or lethal take.

Denning period	No take (female and cub(s))	Level B (female)	Level B (cub(s))	Level A (cub(s))	Den Abandonment
Den establishment	0.818	0.182	NA	NA	NA
Early denning	0.941	0.059	NA	NA	0.059
Late denning	0.711	0.289	0	0.289	NA
Post-emergence case 1 <sup>1</sup>	0	1.000	0.280	0.720	NA
Post-emergence case 2 <sup>2</sup>	0	1.000	0.700	0.300	NA

<sup>1</sup>The den was not disturbed (i.e., did not experience harassment) during the late denning period.

<sup>2</sup>The den was disturbed during the late denning period.

Note: Level B harassment was applicable to both females and cubs, if present. Level A harassment and lethal take were applicable to cubs only and were not possible during the den establishment period, which ended with the birth of cubs. During the early denning period, there was no Level A harassment for cubs, only den abandonment, which would result in mortality of any cubs in the den. Probabilities were calculated from the analysis of 42 case studies of denning polar bear responses to human activity.

To estimate the number of cubs that may experience each type of harassment, we used the average cub litter size estimated for the SBS polar bear stock. On average, SBS stock females produce litter sizes of 1.9 cubs (standard deviation=0.5; Smith et al. 2007, 2013; Robinson 2014)

at intervals that vary from 1 to 3 or more years depending on cub survival (Ramsay and Stirling 1988) and foraging conditions.

Polar bear dens would either be in the early denning period (i.e., cubs <60 days old) or the late denning period (i.e., cubs >60 days old) at the start of the Navy's activities. Based on den simulations obtained from the FWS's polar bear den model (e.g., Wilson and Durner 2020; 90 FR 27398, June 26, 2025), we estimated 29.0 percent of maternal dens would still have cubs <60 days old at the onset of the Navy's activities (i.e., February 19). Cubs <60 days old are not viable outside the den and would suffer a lethal outcome if the female emerged from the den early (Woodruff et al. 2022). However, this behavioral response is relatively rare. A review of case studies found that there is a probability of 0.059 (5.9 percent chance) that a den disturbed when cubs are <60 days would lead to an early emergence, resulting in cub mortality (table 6 above). Using this information, we estimated the number of cubs that may experience a lethal take if a den was disturbed during the early denning period by multiplying the proportion of dens in the early denning period by the probability of disturbance resulting in lethal take of cubs by the number of dens encountered in the early denning period and by the average cub litter size (equation 6).

$$0.290_{\text{prop. dens in early denning period}} * 0.059_{\text{prob. of lethal take}} * 0.070_{\text{den encountered in early denning period}} * 1.9_{\text{average cub litter size}} = 0.002 \text{ cubs experiencing lethal take during the early denning period}$$

Equation 6

This should be considered the maximum potential for harassment because the probability of the den still being in the early denning period declines over time and, therefore, the estimated number of cubs that may experience lethal take arising from den disturbance is highest at the start of the Navy's on-ice activities. Additionally, a disturbance causing early emergence during the early denning period would result in Level B harassment of the female (Woodruff et al. 2022). The estimated number of females that may experience Level B harassment if a den was disturbed during the early denning period is 0.001, the same as the estimated average number of

dens in the early denning period potentially exposed to disturbance during the Navy's on-ice activities.

Alternatively, if a den is disturbed during the late denning period, it could lead to early emergence and potentially have a negative survival likelihood consequence (i.e., Level A harassment) for cubs (Rode et al. 2018, Woodruff et al. 2022). The FWS's review of case studies found that a den that is disturbed during the late denning period has a 0.289 probability (28.9 percent chance) of early emergence (table 6 above). We, therefore, estimated the number of cubs that may experience Level A harassment from den disturbance during the late denning period by multiplying the probability of disturbance resulting in Level A harassment of cubs by the number of dens encountered in the late denning period and by the average cub litter size (equation 7).

$$0.289_{\text{prob. of Level A harassment}} * 0.104_{\text{den encountered in late denning period}} * 1.9_{\text{average cub litter size}} = 0.057 \text{ cubs experiencing Level A harassment during the late denning period}$$

Equation 7

Recent research has shown that the negative impacts to cubs' survival rates associated with early emergence can be offset if the female and cubs remain at the den site for a longer period of time (Andersen et al. 2024). We did not account for the female and cubs remaining at the den site after den emergence in our calculations, therefore, it is possible that the estimated number of cubs that may experience Level A harassment during the late denning period is lower than 0.057 if the female and cubs remain at the den site after early emergence. The estimated number of females that may experience Level B harassment if a den was disturbed during the late denning period is 0.030.

It is possible that cubs may experience either Level A harassment or Level B harassment if a disturbance occurs during the post-emergence period when the female and cubs are still at the den site. The FWS's review of case studies found that there is a 0.720 probability (72.0 percent chance) that disturbance of the den will lead to early departure during the post-emergence period if the den was undisturbed during the late denning period and a 0.300 probability (30.0 percent chance) that disturbance of the den will lead to early departure during

the post-emergence period if the den was disturbed during the late denning period (table 6 above). We used these probabilities to estimate the probability of cubs that may experience Level A harassment during the post-emergence period accounting for all cases of disturbances in the late denning period (equation 8).

$$0.711_{\text{prob. of no take in late denning period}} * 0.720_{\text{prob. of Level A harassment in post-emergence period case 1}} + 0.289_{\text{prob. of Level A harassment in late denning period}} * 0.300_{\text{prob. of Level A harassment in post-emergence period case 2}} = 0.599 \text{ probability of cubs experiencing Level A harassment during the post-emergence period}$$

Equation 8

Based on this probability, we calculated the number of cubs that may experience Level A harassment from den disturbance during the post-emergence period by multiplying the probability of disturbance resulting in Level A harassment of cubs during the post-emergence period, which accounts for all cases of disturbances in the late denning period, by the number of dens encountered in the post-emergence period and by the average cub litter size (equation 9).

$$0.599_{\text{prob. of Level A harassment in post-emergence period}} * 0.104_{\text{den encountered in post-emergence period}} * 1.9_{\text{average cub litter size}} = 0.118 \text{ cubs experiencing Level A harassment during the post-emergence period}$$

Equation 9

Finally, we estimated the number of cubs that may experience Level B harassment occurring as a result of the Navy's on-ice activities. This implies that the polar bears had a behavioral response to disturbance that was consistent with Level B harassment, but they did not depart the den site early. As with our calculation for Level A harassment, we considered the probabilities of cubs that may experience Level B harassment if a den was disturbed during the post-emergence period accounting for all cases of disturbances in the late denning period (table 6 above). We used these probabilities to estimate the probability of cubs that may experience Level B harassment if a den was disturbed during the post-emergence period (equation 10).

$$0.711_{\text{prob. of no take in late denning period}} * 0.280_{\text{prob. of Level B harassment in post-emergence period case 1}} + 0.289_{\text{prob. of Level A harassment in late denning period}} * 0.700_{\text{prob. of Level B harassment in post-emergence period case 2}} = 0.401 \text{ probability of cubs experiencing Level B harassment during the post-emergence period}$$

Equation 10

Based on this probability, we calculated the number of cubs that may experience Level B harassment if a den was disturbed during the post-emergence period by multiplying the probability of disturbance resulting in Level B harassment of cubs during the post-emergence period, which accounts for all cases of disturbances in the late denning period, by the number of dens encountered in the post-emergence period and by the average cub litter size (equation 11).

$$0.401_{\text{prob. of Level B harassment in post-emergence period}} * 0.104_{\text{den encountered in post-emergence period}} * 1.9_{\text{average cub litter size}} = 0.079 \text{ cubs experiencing Level B harassment during the post-emergence period}$$

Equation 11

The estimated number of females that may experience Level B harassment if a den was disturbed during the post-emergence period is 0.104.

In summary, we estimated that between 0.070 and 0.104 dens are potentially available to be disturbed during the Navy's on-ice activities if there is suitable denning habitat within the impact area. Considering that dens and polar bears are not fractional units, we note that our 0.070 and 0.104 den estimates should be interpreted as there being a 7.0 percent and 10.4 percent chance that a single den is potentially exposed to disturbance from the Navy's on-ice activities. Therefore, the most probable outcome of the Navy's on-ice activities is that no den is within the impact area, resulting in no impacts to denning polar bears. However, we further estimated the number of cubs that may experience each type of harassment during each denning period and the number of females that may experience Level B harassment during each denning period for the <1 den that we predicted could be exposed to the Navy's on-ice activities and potentially disturbed. The estimated number of cubs that may experience harassment from den disturbance ranges from 0.002 to 0.118 across the denning periods. Considering the low probability that one den is potentially exposed to disturbance during the Navy's on-ice activities, we do not anticipate any harassment to denning polar bears during the Navy's on-ice activities.

### *Critical Assumptions*

To conduct this analysis and estimate the potential amount of Level B harassment, Level A harassment, and lethal take, we made several critical assumptions.

Polar bear encounter rates are based on SBS adult female satellite locations within the ice camp study area during the project period from 1986 to 2016 in the USGS dataset (Pagano et al. 2021). There is limited information comparing the distribution and movements of adult females, adult males, and subadults from the SBS stock in the ice camp study area. We assumed that adult female step selection patterns during the project period were similar to adult males and subadults from the SBS stock based on similar step selection patterns between adult females, adult males, and subadults from the CBS stock (Wilson et al. 2022). This assumption was used to estimate the number of SBS polar bears across sex and age classes that may occur within the ice camp study area during the project period.

Level B harassment is equated herein with a disturbance that causes disruption of natural behavioral patterns to a point where they are abandoned or significantly altered. There are likely some animals that respond in ways that indicate some level of disturbance but do not experience significant biological consequences. Our estimates do not account for variable responses by polar bear age and sex; however, sensitivity of denning polar bears was incorporated into the analysis. The available information suggests that polar bears are generally resilient to low levels of disturbance. Females with dependent young and juvenile polar bears are physiologically the most sensitive (Andersen and Aars 2008) and most likely to experience harassment from disturbance. There is not enough information on composition of the SBS polar bear stock in the project area to incorporate individual variability based on age and sex or to predict its influence on harassment estimates. Our estimates are derived from a variety of sample populations with various age and sex structures, and we assume the exposed population will have a similar composition and that, therefore, the response rates are applicable.

The estimates of behavioral response presented here do not account for the individual movements of animals away from the project area or differential response of animals to noise or human presence due to past experiences. Our assessment assumes animals remain stationary (i.e., density does not change). There is not enough information about the movement of polar bears in

response to specific disturbances to refine this assumption. Additionally, estimates of behavioral response are based on polar bear monitoring reports primarily recorded on land. There is limited information on polar bear responses to human activities on the sea ice; therefore, we assume polar bear responses to human activities on the sea ice are similar to polar bear responses to human activities on land.

When we estimated that take by harassment of only one polar bear may occur in our analyses, we considered the potential for take by harassment of family groups. When a female exhibits a disturbance response, the cubs will typically respond in a similar manner. Therefore, we assumed that if a family group were to be encountered and harassed in response to the Navy's activities, then the female and all cubs would be harassed. On average, SBS stock females produce litter sizes of 1.9 cubs (standard deviation=0.5; Smith et al. 2007, 2013; Robinson 2014). We estimate an average group size of three polar bears for family groups. We conservatively rounded up our one polar bear estimate to three polar bears in order to account for the potential harassment of a family group.

The probabilities of den exposure to human activities resulting in the types of harassment of denning polar bears are based on our analysis of 42 case studies from land-based dens. Polar bear dens on the sea ice have been reported to emerge earlier and exhibit shorter denning durations compared to land-based dens (Rode et al. 2018). An earlier den emergence date associated with sea ice dens would reduce the potential for den exposure to human activities resulting in harassment of denning polar bears. Our estimates for the harassment of denning polar bears do not account for the earlier den emergence date and shorter den duration reported for sea ice dens and, therefore, result in a more conservative estimate of harassment to denning polar bears during the project.

#### *Sum of Harassment from All Sources*

Our analyses quantified the total number of Level B harassment, Level A harassment, and lethal take likely to result from the Navy's specified activities. We evaluated four potential

sources of harassment/take, including surface interactions, aircraft overflights, in-water activities, and den disturbance of females and/or cubs in our analyses. A summary of total estimated take via Level B harassment during the project by source is provided in table 7. We do not anticipate nor authorize take by Level A harassment or lethal take during the project.

Table 7—Total estimated takes by Level B harassment of polar bears by source.

Number of estimated Level B harassments	Surface interactions	Aircraft overflights	In-water activities	Den disturbance	Total
	3*	3*	0	0	6

\* We conservatively rounded up our one polar bear estimate to three polar bears in order to account for the average group size of a family group in case a family group is encountered.

### **Determinations and Findings**

In making these findings, we considered the best available scientific information, including the biological and behavioral characteristics of polar bears, the most recent information on polar bear distribution and abundance within the area of the specified activities, the current and expected future status of the stock (including existing and foreseeable human and natural stressors), the potential sources of disturbance caused by the project, and the potential responses of polar bears to this disturbance. In addition, we reviewed applicant-provided materials, information in our files and datasets, and published reference materials, and consulted with species experts.

#### *Negligible Impact*

We propose a finding that incidental take by Level B harassment of six polar bears resulting from the specified activities cannot be reasonably expected to, and is not reasonably likely to, adversely affect the SBS stock of polar bears through effects on annual rates of recruitment or survival and would, therefore, have no more than a negligible impact on the SBS stock of polar bears.

Polar bears are likely to respond to the specified activities with short-term behavioral reactions or displacement from the project area during the project period. These reactions are unlikely to have consequences for the long-term health, reproduction, or survival of affected

polar bears. Most polar bears will respond to disturbance by moving away from the source, which may cause temporary interruption of foraging, resting, or other natural behaviors. Affected polar bears are expected to resume normal behaviors soon after exposure with no lasting consequences to their survival or reproduction. We do not anticipate or propose to authorize any lethal take or take by Level A harassment of polar bears during the specified activities. We anticipate up to six polar bears are likely to respond to disturbance with a biologically significant behavioral change during the specified activities and these responses to disturbance are temporary and would not result in measurable changes in survival or reproduction of affected polar bears.

Our proposed finding of negligible impact applies to incidental take associated with the specified activities as mitigated by the avoidance and minimization measures identified in the Navy's mitigation and monitoring plan. These mitigation measures are designed to minimize interactions with and impacts to polar bears. These measures and the monitoring and reporting procedures are required for the validity of our finding and are a necessary component of the proposed IHA. For these reasons, we propose a finding that the specified project would have no more than a negligible impact on the SBS stock of polar bears.

#### *Least Practicable Adverse Impact*

We evaluated the practicability and effectiveness of mitigation measures based on the nature, scope, and timing of the specified activities and the best available scientific information. The National Defense Authorization Act for Fiscal Year 2004 amended the MMPA as it relates to military readiness activities such that least practicable adverse impact shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. After reviewing the original Request (submitted April 7, 2025), the FWS discussed additional mitigation measures with the Navy to reduce the potential impacts of the specified activities. These additional mitigation measures included: increasing the avoidance distance to a minimum of 805 m (0.5 mi) away from polar bears; implementing a

maximum avoidance distance (805 m (0.5 mi) or greater whenever possible) from steep terrain and areas with pressure ridges or snow drifts greater than 1.5 m (5 ft) to reduce potential impacts to denning polar bears; requiring personnel to use vehicle-mounted or handheld forward-looking infrared units and thermal scopes to the maximum extent practicable when transiting or entering new terrain within the project area to enhance detection of dens and/or traveling family groups following den emergence; and requiring personnel on the ice to observe the surrounding area for polar bears prior to deploying, recovering, or surfacing of unmanned underwater vehicles and submarines to the maximum extent practicable. The Navy incorporated these additional mitigation measures in their revised Request and supporting documentation (submitted August 21, 2025). We propose a finding that the mitigation measures included within the revised Request would ensure least practicable adverse impact on polar bears.

Avoidance of potential polar bear denning habitat and maintaining the maximum distance practicable from all known polar bear dens will minimize impacts to denning females and their cubs during this critical period. Minimum flight elevations over polar bear areas and flight restrictions around observed polar bears and known polar bear dens will reduce the potential for aircraft disturbing polar bears. Finally, the Navy will implement mitigation measures to prevent the presence and impact of attractants in the ice camp, such as storing solid waste and hazardous materials in secure containers inside camp structures. These measures are outlined in a polar bear interaction plan that was developed in coordination with the FWS and is part of the Navy's application for this IHA.

Several additional potential mitigation measures were considered but determined to be not practicable. These measures are listed below:

- *Require aerial infrared surveys to detect polar bear dens*—Aerial infrared is unable to detect polar bear dens on the sea ice.

- *Require use of den detection dogs*—It is not practicable or safe to require scent-trained dogs to detect dens due to the isolated location of the temporary ice camp and large spatial extent that would need to be surveyed within activity areas.

- *Require all activities to cease if a suspected polar bear den site is located*—It is not practicable or safe to require all activities to cease if a suspected den site is located due to the isolated location of the temporary ice camp. If a suspected den site is located, personnel will avoid the suspected den site and notify the FWS as soon as possible. The FWS has incorporated reporting requirements into this proposed IHA for all polar bear interactions.

- *Ground all flights if they must fly below 457 m (1,500 ft)*—Requiring all aircraft to maintain an altitude of 457 m (1,500 ft) at all times is not practicable as some operations may require flying below 457 m (1,500 ft) to perform necessary inspections or maintain safety of the flight crew. For other operations, aircraft are required to fly above 457 m (1,500 ft) at all times within 805 m (0.5 mi) of an observed polar bear unless there is an emergency or critical logistical need, such as medical supply delivery or fuel resupply.

- *Spatial and temporal restrictions on surface activity*—Some spatial and temporal restrictions of operations were included in the Request; however, additional restrictions, such as not operating during polar bear denning season, would not be practicable for the specified activities based on potential impacts on the effectiveness of the military readiness activity.

- *Construct safety gates, fences, and enclosures to prevent polar bears from accessing facilities*—This project will require no permanent facility/structures and encompasses a large area in an isolated location. Construction and deconstruction of barriers for a temporary camp would require additional flights to move equipment and extend the duration of the project, which could increase disturbance to polar bears. Personnel will monitor for polar bears approaching the temporary camp. The FWS has incorporated monitoring and reporting requirements into this proposed IHA for all polar bear interactions.

- *Require protected species observers for monitoring, recording, reporting, and implementing mitigation measures*—It is not practicable or safe to hire third-party protected species observers due to the isolated location of the ice camp, operational constraints, and the short-term, temporary nature of the specified activities. Additional personnel may require additional transit vehicles and accommodations, which could increase disturbance to polar bears. The Navy will provide polar bear avoidance training and polar bear monitoring and reporting training to personnel. The FWS has incorporated monitoring, data recording, and reporting requirements into this proposed IHA.

#### *Impact on Subsistence Use*

Based on past community consultations, locations of hunting areas, the anticipated lack of overlap of hunting areas and the specified activities, and the best scientific information available, including monitoring data from similar activities, we propose a finding that take caused by the specified activities would not have an unmitigable adverse impact on the availability of polar bears for taking for subsistence uses during the specified timeframe.

While polar bears represent a small portion, in terms of the number of animals, of the total subsistence harvest for the Kaktovik and Nuiqsut communities, their harvest is important to Alaska Native people. The Navy will be required to contact subsistence communities that may be affected by its activities to discuss potential conflicts caused by location, timing, and methods of the specified activities. The Navy must make reasonable efforts to ensure that activities do not interfere with subsistence hunting and that adverse effects on the availability of polar bears are minimized. Should such a concern be voiced, the Navy will develop a plan of cooperation (POC) that identifies measures to minimize any adverse effects. The POC will ensure that the specified activities will not have an unmitigable adverse impact on the availability of the species or stock for subsistence uses. This POC must provide the procedures addressing how the Navy will work with the affected Alaska Native communities and what actions will be taken to avoid interference with subsistence hunting of polar bears, as warranted.

The FWS is not aware of information that indicates that polar bears will be deterred from hunting areas or impacted by the specified project activities in any way that diminishes their availability for subsistence use.

## **References Cited**

A list of the references cited in this notice may be found at <https://www.regulations.gov> under Docket No. FWS–R7–ES–2025–1100.

## **Required Determinations**

### *National Environmental Policy Act (NEPA)*

We have prepared a draft environmental assessment in accordance with NEPA (42 U.S.C. 4321 *et seq.*). We have preliminarily concluded that the proposed action of issuing a final IHA would not significantly affect the quality of the human environment and, thus, preparation of an environmental impact statement for this IHA is not required by section 102(2) of NEPA or its implementing regulations. We are accepting comments on the draft environmental assessment as specified above in **DATES** and **ADDRESSES**.

### *Endangered Species Act (ESA)*

Under the ESA (16 U.S.C. 1536(a)(2)), all Federal agencies are required to ensure the actions they authorize are not likely to jeopardize the continued existence of any threatened or endangered species or result in destruction or adverse modification of critical habitat. Prior to issuance of a final IHA, the FWS would complete intra-service consultation under section 7 of the ESA on our proposed issuance of an IHA. These evaluations and findings would be made available on the FWS's website at <https://ecos.fws.gov/ecp/report/biological-opinion>.

### *Government-to-Government Consultation*

It is our responsibility to communicate and work directly on a Government-to-Government basis with federally recognized Alaska Native Tribes in developing programs for healthy ecosystems. We are also required to consult with Alaska Native Claims Settlement Act (ANCSA) Corporations in certain circumstances. We seek their full and meaningful participation

in evaluating and addressing conservation concerns for protected species. It is our goal to remain sensitive to Alaska Native culture, and to make information available to Alaska Native people.

Our efforts are guided by the following policies and directives:

(1) *The Native American Policy of the Service* (January 20, 2016);

(2) the *Alaska Native Relations Policy* (currently in draft form; see 87 FR 66255, November 3, 2022);

(3) *Executive Order 13175* (January 9, 2000);

(4) *Department of the Interior Secretarial Orders 3206* (June 5, 1997), *3225* (January 19, 2001), *3317* (December 1, 2011), *3342* (October 21, 2016), and *3403* (November 15, 2021) and *Director's Order 227* (September 8, 2022);

(5) the *Alaska Government-to-Government Policy* (a Departmental memorandum issued January 18, 2001); and

(6) the Department of the Interior's policies on consultation with Alaska Native Tribes and organizations.

We have evaluated possible effects of the proposed IHA on federally recognized Alaska Native Tribes and ANCSA Corporations. The FWS has determined that authorizing the Level B harassment of up to six polar bears from the Navy's specified activities would not have any Tribal implications or ANCSA Corporation implications and, therefore, Government-to-Government consultation or Government-to-ANCSA Corporation consultation is not necessary. However, we invite continued discussion, either about the project and its impacts or about our coordination and information exchange throughout the IHA/POC public comment process.

#### *Paperwork Reduction Act*

This proposed IHA does not contain any new collection of information that requires approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). The OMB has previously approved the information collection requirements associated with IHAs and assigned OMB Control Number 1018-0194 (expires

August 31, 2026). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

### **Proposed Authorization**

We propose to authorize the nonlethal, incidental take by Level B harassment of up to six polar bears from the SBS stock of polar bears. Authorized take would be limited to disruption of behavioral patterns that may be caused by mobilization, operation, and demobilization of a temporary ice camp, aircraft transportation, submarine training and testing, and research activities conducted by the Navy in the Beaufort Sea and Arctic Ocean, between February 9, 2026, and April 9, 2026. We do not anticipate or propose to authorize any take by Level A harassment, injury, or death to polar bears resulting from these activities.

#### *A. General Conditions for the IHA for the Navy*

(1) Activities must be conducted in the manner described in the Navy's revised Request dated August 21, 2025, for an IHA and in accordance with all applicable conditions and mitigation measures. The taking of polar bears whenever the required conditions, mitigation, monitoring, and reporting measures are not fully implemented as required by the IHA is prohibited. Failure to follow the measures specified both in the revised Request and within this proposed authorization may result in the modification, suspension, or revocation of the IHA.

(2) If project activities cause unauthorized take (i.e., take of more than six polar bears from the SBS stock by Level B harassment, a form of take other than Level B harassment, or take of one or more polar bears through methods not described in the IHA), the Navy must report the details of the incident to the FWS as soon as practicable.

(3) All operations managers, vehicle operators, and aircraft pilots must receive a copy of this IHA and maintain access to it for reference at all times during project work. These personnel must understand, be fully aware of, and be capable of implementing the conditions of the IHA at all times during project work.

(4) This IHA will apply to activities associated with the specified project as described in this document and in the Navy's revised Request. Changes to the specified project without prior authorization may invalidate the IHA.

(5) The Navy's revised Request is approved and fully incorporated into this IHA unless exceptions are specifically noted herein. The revised Request includes:

- The Navy's original request for an IHA, dated April 7, 2025;
- The Navy's *Polar Bear Interaction Management and Avoidance Plan*, dated April 7, 2025; and
- The Navy's revised request for an IHA, dated August 21, 2025.

(6) Operators will allow the FWS personnel or the FWS's designated representative to visit project work sites to monitor for impacts to polar bears and subsistence uses of polar bears at any time throughout project activities if it is safe to do so. "Operators" are all personnel operating under the Navy's authority, including all contractors and subcontractors.

#### *B. Avoidance and Minimization*

The Navy must implement the following policies and procedures to avoid interactions and minimize to the greatest extent practicable any adverse impacts on polar bears, their habitat, and the availability of these marine mammals for subsistence uses.

(1) *General Avoidance Measures.* The Navy must cooperate with the FWS and other designated Federal, State, and local agencies as appropriate to monitor and mitigate the impacts of activities on polar bears.

(2) Trained and qualified personnel must be designated to monitor for the presence of polar bears, initiate mitigation measures, and monitor, record, and report the effects of the activities on polar bears. The Navy must provide all operators with polar bear awareness training prior to their participation in project activities.

(3) An FWS-approved polar bear safety, awareness, and interaction plan must be on file with the FWS Marine Mammals Management office and available onsite. The interaction plan must include:

- (i) A description of the specified activity (i.e., a summary of the plan of operations);
- (ii) A food, waste, and other attractants management plan;
- (iii) Personnel training, policies, procedures, and materials;
- (iv) Site-specific polar bear interaction risk evaluation and mitigation measures;
- (v) Polar bear avoidance and encounter procedures; and
- (vi) Polar bear observation and reporting procedures.

(4) The Navy must contact potentially affected subsistence communities and hunter organizations to discuss potential conflicts caused by the activities and provide the FWS documentation of communications as described in *D. Measures To Reduce Impacts to Subsistence Users*.

(5) *Mitigation measures for on-ice activities*. The Navy must undertake the following activities to limit disturbance around polar bears on the ice and known polar bear dens:

- (i) Operators must observe for polar bears during travel activities on the ice.
- (ii) Operators must use vehicle-mounted or handheld forward-looking infrared units and thermal scopes to the maximum extent practicable when transiting or entering new terrain within the project area to enhance detection of dens and/or traveling family groups (female with cubs) following den emergence. Areas along any pressure ridges, snow drifts greater than 1.5 m (5 ft) in height, snow piles, steep terrain, and any other areas that may provide suitable snow buildup for denning polar bears in the project area must be surveyed.
- (iii) Operators must maintain a minimum avoidance distance of 805 m (0.5 mi) from all polar bears, except in the event of an emergency.
- (iv) Vehicle operators must travel in a predictable manner and avoid sudden changes in speed and direction when in the vicinity of polar bears.

(v) Vehicle operators must follow established routes when available. Vehicle operators must not follow a polar bear, except in the event of actively deterring the polar bear if the situation requires.

(vi) Operators must implement infrastructure planning, design, and management, as well as snow management on the ice camp site, to eliminate potential polar bear bedding/denning areas and to reduce risk of surprise encounters.

(vii) Operators must avoid or maintain the maximum distance practicable (805 m (0.5 mi) or greater whenever possible) from steep terrain and areas with pressure ridges or snow drifts greater than 1.5 m (5 ft) in height that may support polar bear dens and ringed seal (primary polar bear prey species) subnivean lairs.

(viii) All observed or suspected polar bear dens must be reported to the FWS prior to the initiation of activities.

(ix) If a suspected den site is located, the Navy will immediately consult with the FWS to analyze the data and determine if additional surveys or mitigation measures are required. The FWS will determine whether the suspected den is to be treated as a putative den for the purposes of this IHA.

(x) Operators must observe an operational exclusion zone at the maximum distance practicable (1.6 km (1 mi) or greater whenever possible) around all putative polar bear dens during the denning season (November–April, or until the female and cubs leave the areas). Should a suspected den be discovered within 1.6 km (1 mi) of activities, work must be relocated or cease in the area of the den and the Navy must consult with the FWS as soon as practicable for additional guidance.

(6) *Mitigation measures for in-water activities.* Operators on the ice must observe the surrounding area for polar bears prior to deploying, recovering, or surfacing of unmanned underwater vehicles and submarines to the maximum extent practicable.

(i) Operators must avoid deploying, recovering, or surfacing unmanned underwater vehicles and submarines if a polar bear is within 805 m (0.5 mi) of the underwater vehicle to the maximum extent practicable.

(7) *Mitigation measures for aircraft activities.* Operators of support aircraft shall, at all times, conduct their activities at the maximum distance practicable from concentrations of polar bears.

(i) Aircraft operations within the project area will maintain a minimum altitude of 457 m (1,500 ft) above ground level, except during take-off and landing or when a lower flight altitude is necessary for operational reasons, or for safety due to weather or restricted visibility.

(ii) Under no circumstances, other than an emergency, will aircraft operate at an altitude lower than 457 m (1,500 ft) within 805 m (0.5 mi) of a polar bear observed on ice, land, or in water measured in a straight line between the polar bear and the ground/water directly underneath the aircraft. Rotary-wing aircraft may not hover or circle above such areas or within 805 m (0.5 mi) of such areas. If weather conditions or operational constraints necessitate operation of aircraft at altitudes below 457 m (1,500 ft), the operator must avoid areas of known polar bear concentrations and should take precautions to avoid flying directly over or within 805 m (0.5 mi) of these areas.

(iii) Operators must plan all aircraft routes to minimize flight hours over predominantly coastal areas and sea ice over the continental shelf.

(iv) Operators must plan all aircraft routes to minimize any potential conflict with active or anticipated polar bear hunting activity as determined through community consultations.

(v) Aircraft will not land within 805 m (0.5 mi) of a polar bear. If a polar bear is observed while the aircraft is grounded in remote areas without shelter, personnel will board the aircraft and leave the area. The aircraft operator will also avoid flying over the polar bear if possible. Operators should avoid making any sudden maneuvers, especially when traveling at lower altitudes, even if such maneuvers are intended to avoid polar bears. If a polar bear is observed

within the landing zone or work area, operators should travel away from the site and slowly increase altitude to 457 m (1,500 ft) or a level that is safest and viable given current traveling conditions. Aircraft may not be operated in such a way as to separate individual polar bears from a group (i.e., two or more polar bears).

(vi) Operators must not track or follow polar bears with aircraft, including unmanned aircraft systems (UAS).

### *C. Monitoring*

(1) Operators must provide onsite observers and implement the FWS-approved polar bear avoidance and interaction plan to apply mitigation measures, monitor the project's effects on polar bears and subsistence uses, and evaluate the effectiveness of mitigation measures.

(2) All onsite observers shall complete an FWS-provided training course designed to familiarize individuals with monitoring and mitigation activities identified in the polar bear avoidance and interaction plan.

(3) Onsite observers must be present during all operations and must record all polar bear observations, identify and document potential harassment, and work with personnel to implement appropriate mitigation measures.

(4) Operators shall cooperate with the FWS and other designated Federal, State, and local agencies as appropriate to monitor impacts of project activities on polar bears. Where information is insufficient to evaluate the potential effects of activities on polar bears and the subsistence use of this species, the Navy may be required to participate in joint monitoring efforts to address these information needs and ensure the least practicable adverse impact to this resource.

### *D. Measures To Reduce Impacts to Subsistence Users*

The Navy must conduct its activities in a manner that, to the greatest extent practicable, minimizes adverse impacts on the availability of polar bears for subsistence uses.

(1) The Navy will be required to develop an FWS-approved POC if, through community

consultation, concerns are raised regarding impacts to subsistence harvest or Alaska Native Tribes and Organizations.

(2) If an FWS-approved POC is required, the Navy will implement that POC.

(3) Prior to conducting the project, the Navy will take the following steps to reduce potential effects on subsistence harvest of polar bears:

(i) Avoid work in areas of known polar bear subsistence harvest;

(ii) Notify the Native Village of Kaktovik and the Native Village of Nuiqsut of the specified project activities;

(iii) Work to resolve any concerns of potentially affected Alaska Native Tribal Organizations and Corporations regarding the project's effects on subsistence hunting of polar bears;

(iv) If any unresolved or ongoing concerns of potentially affected Alaska Native Tribal Organizations and Corporations remain, modify the POC in consultation with the FWS and subsistence stakeholders to address these concerns; and

(v) Implement FWS-required mitigation measures that will reduce impacts to subsistence users and their resources.

#### *E. Reporting Requirements*

The Navy must report the results of monitoring to the FWS Marine Mammals Management office via email at [fw7\\_mmm\\_reports@fws.gov](mailto:fw7_mmm_reports@fws.gov).

(1) *In-season monitoring reports.*

(i) *Activity progress reports.* The Navy must:

(A) Notify the FWS at least 48 hours prior to the onset of activities;

(B) Notify the FWS within 48 hours of project completion or end of the work period.

(ii) *Polar bear observation reports.* The Navy must report, within 48 hours, all observations of polar bears and potential polar bear dens during any project activities. Upon request, monitoring report data must be provided in a common electronic format (to be specified

by the FWS). Injured, dead, or distressed polar bears that are clearly not associated with project activities (e.g., animals found outside the project area, previously wounded animals, or carcasses with moderate to advanced decomposition or scavenger damage) must also be reported to the FWS immediately, and not later than 48 hours after discovery. Photographs, video, location information, or any other available documentation must be included. Information in the observation report must include, but need not be limited to:

- (A) Date and time of each observation;
- (B) Locations of the observer and polar bears (GPS coordinates if possible);
- (C) Number of polar bears;
- (D) Sex and age class—adult, subadult, cub (if known);
- (E) Observer name and contact information;
- (F) Weather, visibility, and if at sea, sea state, and sea ice conditions at the time of observation;
- (G) Estimated initial distance when first observed and closest distance of polar bears from personnel and facilities;
- (H) Type of work being conducted at time of observation;
- (I) Possible attractants present;
- (J) Polar bear behavior—initial behavior when first observed (e.g., walking, swimming, resting, etc.);
- (K) Potential reaction—behavior of polar bear potentially in response to presence or activity of personnel and equipment;
- (L) Description of the encounter;
- (M) Duration of the encounter; and
- (N) Mitigation actions taken.

(2) *Human–polar bear interaction reports.* The Navy must report all human–polar bear interaction incidents immediately, and not later than 48 hours after the incident. A human–polar

bear interaction incident includes any situation in which there is a possibility for unauthorized take. Example scenarios include when project activities exceed those included in an IHA, when a mitigation measure was required but not enacted, or when injury or death of a polar bear occurs.

Reports must include:

(i) All information specified for an observation report in paragraphs (1)(ii)(A)–(N) of this section E;

(ii) A complete detailed description of the incident; and

(iii) Any other actions taken.

(3) *Final report.* The results of monitoring and mitigation efforts identified in the polar bear avoidance and interaction plan must be submitted to the FWS for review within 90 days of the expiration of this IHA. Upon request, final report data must be provided in a common electronic format (to be specified by the FWS). Information in the final report must include, but need not be limited to:

(i) Copies of all observation reports submitted under the IHA;

(ii) A summary of the observation reports;

(iii) A summary of monitoring and mitigation efforts including areas, total hours, total distances, and distribution;

(iv) Analysis of factors affecting the visibility and detectability of polar bears during monitoring;

(v) Analysis of the effectiveness of mitigation measures;

(vi) A summary and analysis of the distribution, abundance, and behavior of all polar bears observed; and

(vii) Estimates of take in relation to the specified activities.

### **Request for Public Comments**

If you wish to comment on this proposed authorization, the associated draft environmental assessment, or both documents, you may submit your comments by either of the

methods described above in **ADDRESSES**. Please identify if you are commenting on the proposed authorization, draft environmental assessment, or both; make your comments as specific as possible; confine them to issues pertinent to the documents; and explain the reason for any changes you recommend. Where possible, your comments should reference the specific section or paragraph that you are addressing. The FWS will consider all comments that are received before the close of the comment period (see **DATES** above). The FWS does not anticipate extending the public comment period beyond the 30 days required under section 101(a)(5)(D)(iii) of the MMPA.

Comments, including names and street addresses of respondents, will become part of the administrative record for this proposal. Before including your address, telephone number, email address, or other personal identifying information in your comment, be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comments to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

**Peter Fasbender,**

*Assistant Regional Director for Fisheries and Ecological Services,  
Alaska Region.*

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