The Coast Guard proposes to conduct Arctic Shield 2017 in the Arctic Region during the ice-free season from mid-May to mid-November. The Proposed Action consists of five main elements employed to meet the objectives of Arctic Shield 2017. These elements are:

- Land/shore operations;
- Air operations;
- Sea operations;
- Training exercises; and
- Tribal and local government engagement.

Arctic Shield 2017 missions would include support for Search and Rescue (SAR), Arctic domain awareness flights, and, upon request, support for other federal agency missions. The Forward Operating Location (FOL) and logistics/staging locations would serve as temporary Coast Guard home bases for sea and air support during the seasonal surge of Arctic activities. Kotzebue would serve as a refueling station for two MH-60 Jayhawk helicopters, and the FOL for Arctic Shield 2017. Other FOLs could include Utqiagvik (Barrow) and Nome.

Under the Proposed Action, assets used during Arctic Shield could include one high or medium endurance cutter, one buoy tender, two MH-60T Jayhawk helicopters (stationed in Kotzebue), and one MH-65 Dolphin helicopter (stationed on high or medium endurance cutters). With the exception of an emergency, which is not covered in the EA, helicopters would operate at altitudes of no less than 1,000 ft (305 m), whenever possible. Each high or medium endurance cutter would carry a Dolphin helicopter as well as a small boat. Cutters employ the use of typical navigational sonar, a single beam echosounder with an operational frequency typically ranging from 50-200 kilohertz (kHz). The Proposed Action also includes training (in the use of helicopters, small boats, and oil recovery) and outreach programs with tribal and local governments and communities in the Arctic Region.

Arctic Shield takes place from mid-May to mid-November utilizing a variety of assets in missions as well as training and outreach. Active acoustic transmission would be used for navigation any time sea assets are underway.

**Summary of the Results of the Environmental Impact Evaluation:**

**Physical Environment.** The Proposed Action consists of the movement of vessels and aircraft, as well as the transmission of underwater acoustics and sound made by aircraft and vessels. The Proposed Action contains no stressors to the physical environment and there is no significant impact or harm to the physical environment.

**Biological Environment.** The potential impacts to the biological environment that were analyzed are from acoustic stressors (acoustic transmissions, vessel noise, and aircraft noise) and physical stressors (vessel movement and aircraft movement). The stressors of both physical and acoustic disturbance would not significantly impact or harm, invertebrates, marine birds, fish, essential fish habitat (EFH), or marine mammals. Active acoustic transmissions, vessel noise, aircraft noise, vessel movement, and aircraft movement may affect, but are not likely to adversely affect ESA-listed marine birds and marine mammals. The stressors, both acoustic and physical, are not expected to result in mortality or Level A or B harassment, as defined under the MMPA. The implementation of the Proposed Action would result in no significant impact or harm to biological resources.
Socioeconomic Environment. The potential impacts analyzed include fishing, shipping, tourism, and socioeconomic resources. The Proposed Action would deter illegal fishing activities and provide a law enforcement and safety presence, providing positive impacts to the state of Alaska and industries that operate off the coast of Alaska. The Proposed Action would not impact the hunting and fishing activities of the Alaska Native communities. The Proposed Action would provide positive impacts by providing at-sea safety and emergency response, as well as educational opportunities for Alaska Native communities. In regards to subsistence resources, as stated in the Standard Operating Procedures and Best Management Practices, all Coast Guard vessels will avoid areas of active or anticipated subsistence hunting activities (for species such as whale, walrus, bird, seal, caribou, muskox, moose, sheep, and bear) as determined through community engagement and information. Coast Guard will also coordinate with tribal representatives about planned hunts. The Proposed Action would not result in significant impact to the socioeconomic environment.

Cumulative Impacts. No significant cumulative impact to the physical, biological, or socioeconomic environment would occur as a result of the Proposed Action in combination with past, present, or future planned projects. This is based off the limited number of assets used in the Proposed Action and their transient nature over the Arctic region.

**Mitigation Commitments (Including Monitoring) that will be Implemented to Reduce Otherwise Significant Impacts:**

No significant impacts were identified in the EA. The Coast Guard will follow the restrictions and guidance in the Coast Guard Directives and Best Management Practices (BMPs) as part of the Proposed Action. (Detailed descriptions of these measures are found in Chapter 6 of the EA.)

**Coast Guard Directives**
The following Directives promulgated by the Commandant of the Coast Guard or D17 Commander ensure that actions carried out by Coast Guard vessels and aircraft are not likely to significantly affect protected species.

- The Marine Protected Species Program for the Gulf of Alaska, Bering Sea/Aleutian Islands, and Arctic (Coast Guard District 17 Instruction [CGD17INST] 16214.2A) outlines procedures for avoiding marine mammals and protected species; reporting whale and protected species sightings, strandings, and injuries; and enforcing the Marine Mammal Protection Act and Endangered Species Act.
- Vessel Environmental Manual (Commandant Instruction [COMDTINST] M16455.1) describes measures for protection of marine wildlife applicable to all waterborne Coast Guard assets, including whale avoidance measures, and restrictions on ballasting and de-ballasting to minimize the introduction of non-native species.
- Coast Guard Air Operations Manual (COMDTINST M3710.1G) prescribes measures for protection of wildlife applicable to all Coast Guard air assets, including avoiding over-flight of sensitive environmental habitat areas or, if over-flight is necessary, stipulating that an altitude of 3,000 feet above ground level be maintained (except in emergency situations).
- Coast Guard Approach, Vessel Speed and Strike Response Guidance (COMPACAREA R142308Z DEC 11) prescribes that vessel operators shall use caution, be alert, maintain a vigilant lookout and reduce speeds, as appropriate, to avoid collisions with whales during the course of normal operations. Operators are required to employ all possible precautions to avoid interactions or collisions with whales, including reducing speed, posting additional dedicated lookouts, avoiding sudden changes in speed and direction, attempting to parallel the course and speed of the moving whale, and avoiding
approach head-on or from directly behind. Distance to all other whales is no closer than 100 yards and 500 yards for right whales. In the Bering Sea, a whale should be treated as a right whale unless the whale is positively identified as another whale species.

- Maritime Law Enforcement Manual (COMDTINST 16247.1) requires that, during all maritime law enforcement activities, the Coast Guard shall seek to avoid collision with a whale during the course of normal operations, including using caution, remaining alert, and reducing speeds, as appropriate.
- Protected Living Marine Resources Program (COMDTINST 16475.7) outlines Coast Guard actions, during Coast Guard operations, to support the recovery of protected living marine resources through internal compliance with and enforcement of Federal, State, and international laws designed to preserve marine protected species.

**Best Management Practices (BMPs)**

Personnel involved in the Arctic Shield would be made aware of operating guidelines through the 2017 Operation Arctic Shield Operations Plan (OPLAN), Annex L, Environmental Considerations. Training on these guidelines will be given by D17 personnel, and State and federal agency personnel in support of D17. Coast Guard aviation and vessel crews will be instructed to use the most conservative altitudes and distance setbacks identified in Coast Guard instructions.

- Crew members will be trained in marine mammal identification and will alert the Command of the presence of marine mammals and initiate adaptive mitigation responses including reducing vessel speed, posting additional dedicated lookouts to assist in monitoring whales’ location, avoiding sudden changes in speed and direction, or if a swimming whale is spotted, attempting to parallel the course and speed of the moving whale so as to avoid crossing its path, and avoiding approach of sighted whales head-on, or directly from behind.
- Reductions in speed for whales and other marine mammals, and a dedicated lookout is recommended upon sighting marine mammals in operating area.
- Coast Guard vessels will not discharge sewage within 3 nautical miles of known or reported marine mammals (to the extent that operating constraints permit). The Coast Guard will coordinate with NMFS, USFWS, and local sources to learn of confirmed haulout locations and communicate them to all field units in the Arctic operating environment.
- Aircraft will not operate at an altitude lower than 1,500 ft (457 m) within 0.5 mi (805 m) of marine mammals observed on ice or land. Helicopters may not hover or circle above such areas or within 0.5 mi of such areas. When weather conditions do not allow a 1,500 ft flying altitude, operators will try and avoid areas of known marine mammal concentrations and will take precautions to avoid flying directly over or within 0.5 mi (805 m) of these areas.
- Fixed-wing aircraft will not operate at an altitude lower than 3,000 ft (610 m) within 0.5 mi (805 m) of marine mammals observed on ice or land. When weather conditions do not allow these minimum flying altitudes, operators will try and avoid known marine mammal concentrations and will take precautions to avoid flying directly over these areas.
- Reductions in vessel speed will be considered when a whale is sighted or known to have been sighted within 5 nautical miles of the intended vessel track. Vessels will use navigationally prudent courses to avoid striking the whale and, if necessary, reduce speed to bare steerageway or come to a stop. A dedicated marine mammal lookout after the initial sighting will be recommended.
This FONSI is based on the Coast Guard prepared environmental assessment (EA), which has been determined to adequately and accurately discuss the environmental issues and impacts of the proposed project and provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

I reviewed the EAs, which is the basis for this FONSI, and submitted my written comments to the Proponent.

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<tr>
<td>SMITH.RAVEN.JAMES BRYAN.1218158710</td>
<td>Environmental Reviewer, CEU Juneau</td>
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<td>DEAN AMUNDSON</td>
<td>Senior Environmental Professional, Environmental Specialist, SILC EMD</td>
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<td>CHRISTOPHER COUTU, CDR</td>
<td>Legal Reviewer</td>
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<td>MICHAEL MCALLISTER, RADM</td>
<td>Proponent, Commanding Officer, USCG District 17</td>
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In reaching my decision/recommendation on the Coast Guard’s proposed action, I considered the information contained in these EAs/FONSI and considered and acknowledged the written comments submitted to me from the Environmental and Legal Reviewers. Based on the information in the EAs and this FONSI document, I agree that the proposed action as described above, and in the EAs, will have no significant impact on the environment.