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FINDING OF NO SIGNIFICANT IMPACT FOR
THE DEPLOYMENT OF UNDERWATER INSPECTION SYSTEMS
U.S. CUSTOMS AND BORDER PROTECTION
DEPARTMENT OF HOMELAND SECURITY

INTRODUCTION: United States (U.S.) Customs and Border Protection (CBP) within the Department of Homeland Security (DHS) proposes to deploy underwater inspection systems (UIS) that use very high frequency (VHF; above 200 kHz) active sound navigation and ranging (SONAR) technology for demonstration, training, and operational purposes (Proposed Action) at various locations within CBP jurisdiction along the U.S. continental coastline, Hawaii, Alaska, U.S. territories, and all inland operating areas. SONAR technology would be used in support of CBP efforts to locate, image, and classify submerged/underwater targets of interest (TOI), and to protect maritime assets and port facilities.

CBP intends to utilize a CodaOctopus® UIS with Echoscope® Parallel Intelligent Processing Engine (PIPE) to produce real-time, high-resolution images of submerged/underwater TOI. The UIS would be attached to a pole mounted on CBP vessels or a remote operated vehicle (ROV), and would be deployed underwater when needed and retracted when not in use. The pole and ROV would only extend a few feet below the vessel and would not disturb the waterbody substrate.

In November 2013, The U.S. Coast Guard (USCG) prepared the 2013 *Programmatic Environmental Assessment (PEA) for the Nationwide Use of High Frequency and Ultra High Frequency Active SONAR Technology* to evaluate the environmental effects of deploying the same UIS for similar uses along U.S. coastlines. The USCG PEA fully covers the scope of CBP's Proposed Action, alternatives, and environmental impacts. As such, CBP is adopting the USCG PEA in this Finding of No Significant Impact (FONSI) in accordance with the Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Implementing Regulations at 40 CFR §1506.3.

PROJECT LOCATION: The proposed use of VHF SONAR UIS will occur in various locations within CBP jurisdiction along the U.S. continental coastline, Hawaii, Alaska, U.S. territories, and all inland operating areas.

PURPOSE AND NEED: The purpose of the Proposed Action is to improve efficiency in implementing the *2020 Border Patrol Strategy and Air and Marine Operations Vision and Strategy 2030* using VHF active SONAR technology to locate, image, and classify underwater TOI. The Proposed Action is needed to detect and prevent illicit materials from entering the United States while minimally affecting legitimate commerce.

ALTERNATIVES: Three alternatives for locating, imaging, and classifying underwater threats and other TOI were developed by USCG and assessed for potential impacts of SONAR use on marine species and other resources in the 2013 USCG PEA.

Alternative 1 evaluated the use of high frequency (HF; 50 to 999 kHz) and ultra-high frequency (UHF; 1,000 kHz and higher) SONAR within all areas of USCG jurisdiction including U.S. continental coastline, Hawaii, Alaska, U.S. territories, and all inland operating areas (Proposed Action). High frequency and ultra-high frequency SONAR use would fall into one of three general categories: (1) operational missions, (2) training and exercises, and (3) research and development. High frequency sounds typically travel short distances compared to low and medium frequency SONAR. The use of high frequency and low-powered SONAR helps to diminish potential impacts by reducing the area ensonified by the equipment. All SONAR use would be of relatively short-term duration and, regardless of the category, only used for the amount of time necessary to complete the mission objectives. In no case would SONAR be employed in fixed positions for long-term, continuous operations. In general, the duration of SONAR use would be as brief as a few minutes to as long as several days.

Alternative 2 evaluated the use of low and medium frequency SONAR. As they require higher power and produce sound that travels a greater distance, these methods are more disruptive to marine species behavior than high frequency SONAR. Additionally, low and medium frequency SONAR is known to cause potential behavioral and physiological impacts on marine mammals and other marine species according to numerous environmental analyses and research conducted by the Department of the Navy, National Oceanic and Atmospheric Administration (NOAA), and other federal and non-federal entities. As a result, these methods were eliminated from further detailed study. Radio Detection and Ranging (RADAR), optical systems, underwater barriers, and trained marine mammals were also eliminated from further detailed studies. All of the unessential activities of this alternative that were eliminated did not meet the USCG's purpose and need for the Proposed Action.

Alternative 3 was the No Action Alternative. Implementing regulations under NEPA require that the No Action Alternative be analyzed in an EA or EIS to provide a baseline for comparison with the action alternatives. The No Action Alternative identifies and describes the potential environmental impacts if an agency chooses not to implement the Proposed Action or some other action alternative. For the purposes of this project, the No Action Alternative was defined as conducting normal USCG operations throughout the defined regions of influence (ROIs) without the use of HF and UHF SONAR technology.

ENVIRONMENTAL CONSEQUENCES: CBP's Proposed Action would utilize VHF (above 200 kHz) SONAR UIS to detect underwater TOI, including swimmers and divers. The SONAR equipment that would be used is comparable to commercially available, high frequency fish finders. These tools are low-power devices and have short pulse-widths (length of the sound pulse) to focus in a single direction.

Marine Protected Areas

Utilization of the proposed SONAR UIS could result in short-term, indirect, minor to moderate adverse effects as well as minor to moderate beneficial impacts to Marine Protected Areas. Short-term, indirect, minor to moderate adverse effects could occur due to disturbance of fish species by ships carrying the proposed SONAR UIS. Indirect, minor to moderate beneficial impacts could occur because SONAR could be used to detect or prevent

environmental threats including illegal swimmers or divers that may disturb marine environmental resources.

Biological Resources

The proposed SONAR UIS does not fall within the hearing range of toothed whales and pinnipeds. As a result, no direct effects on toothed whales and pinnipeds would be expected from such SONAR operations. Additionally, no direct impact on other marine mammal species is expected, since their hearing range (7 Hz to 22 kHz) is lower than that of VHF SONAR transmissions. Level A and B harassment of marine mammals as defined by the Marine Mammal Protection Act (MMPA) would not occur.

No direct impacts to species listed as threatened or endangered under the Endangered Species Act (ESA) are expected as the proposed SONAR UIS does not fall within the hearing range of any ESA-listed species. No direct impacts on non-fish species are expected since their hearing ranges are lower than those of the proposed SONAR UIS. Furthermore, VHF SONAR operates at higher frequencies than most fish species are capable of perceiving. However, hearing capability data are only available for a small percentage of fish; therefore, it is difficult to apply these results to all fish. The proposed SONAR UIS could result in short-term, minor, direct, adverse impacts on some fish species, and short-term, negligible, indirect, adverse impacts on marine or bird species that feed on those fish species. The National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) previously concurred with the USCG's determination that the Proposed Action was not likely to adversely affect ESA-listed species, including marine mammals, under their jurisdiction. Best management practices (BMPs) for the operation of VHF SONAR UIS will be implemented by CBP to avoid impacts on benthic and other resources.

Essential Fish Habitat

Operation of the proposed SONAR UIS would not affect Essential Fish Habitat (EFH) such as seagrass, hard bottom, live bottom, or reef habitat. The SONAR UIS would only be utilized at a water depth that would preclude seafloor disturbance. The potential for the SONAR UIS to contact hard bottom, coral, or seagrass habitat is low.

Public Safety

Minor to moderate beneficial impacts on public safety would be expected from implementation of the proposed SONAR UIS. The VHF SONAR system would operate in typical harbor, anchorage, and wharf environments including fresh, marine, and brackish waters, and in air and water temperatures typical of port/harbor environments. The proposed SONAR UIS would improve CBP's ability to detect and prevent illicit materials from entering the United States while minimally affecting legitimate commerce. The installation and operation of the VHF SONAR system would close an identified significant security gap in our nation's strategic ports.

VHF SONAR systems are above the human hearing threshold. The primary effect on humans from VHF SONAR is heating. As a result, temporary, minor adverse effects on recreational divers could result if they do not adhere to the safe operating distance of VHF SONAR systems (30 feet or greater). Therefore, the risks to human swimmers or divers from VHF SONAR systems would be negligible.

Air Quality

Cumulative impacts on air quality from the proposed SONAR UIS would result in a minor increase in emissions and a minor adverse impact on air quality due to the operation of a CBP vessel to transport the system. The proposed SONAR UIS would be powered by a 24-volt direct current battery pack. CBP vessels would produce emissions that fall well below *de minimis* thresholds.

Water Quality

Minor adverse effects on water quality could result from disturbed sediments from the seafloor; however, CBP vessels operating the proposed SONAR UIS would be operated in open, navigable waterways where contact with the seafloor is precluded.

Cultural Resources

Given that CBP vessels and attached SONAR equipment would not interact with seafloors or riverbeds, no effect on historic properties is expected. Should there be any unforeseen individual instances in which there are deviations from these general conditions, CBP would consult with the SHPO and other interested parties as appropriate to comply with Section 106 in accordance with 36 CFR Part 800.

BEST MANAGEMENT PRACTICES: The following BMPs and environmental design measures were identified and adapted from the 2013 USCG PEA to enhance protection of certain resources that could potentially be affected by the implementation of VHF SONAR UIS.

- CBP personnel would monitor for the presence and activity of marine species at all times of deployment to reduce the potential for entanglement or vessel strike. All CBP personnel tasked as monitors will receive marine mammal training prior to deployment.
- During operational missions, if a marine mammal is observed to be in the path of or approaching a SONAR UIS-equipped vessel, CBP agents would take prudent measures to avoid impacting the wildlife, such as shutting down and retracting the system, moving away from the animal, or slowing down the vessel, tactical situation permitting.
- CBP vessel crews would immediately report sightings of any injured, entangled, or dead protected species to NMFS and USFWS authorities. Sightings will be reported regardless of whether the injury or death is caused by CBP UIS operations.
- CBP will avoid the use of VHF SONAR in scenarios that may potentially result in a disturbance to the seafloor. When not in operation, the proposed SONAR UIS will be retracted from the water to further reduce disturbance to the seafloor.
- CBP will implement programs that protect marine mammals and other marine species. Because the effects of VHF active SONAR on marine mammals are not completely understood and SONAR science is continuously improving and changing, operational procedures would follow an adaptive management approach. Adaptive management would facilitate the ability to consider new data from different sources to determine if and how avoidance or monitoring measures would be modified, added, or deleted, if new data suggest that such modifications are warranted. Additionally, new technology and monitoring measures that become available in the future would be considered for monitoring.

FINDING: On the basis of the findings of the 2013 USGS PEA, which is incorporated by reference, and which was conducted in accordance with NEPA, CEQ implementing regulations, DHS directives, and other pertinent environmental statutes, regulations, and compliance requirements, and after careful review of the potential environmental impacts of implementing the proposal, CBP finds there would be no significant impact on the quality of the human or natural environments, either individually or cumulatively, from the CBP action. Therefore, there is no requirement to develop an Environmental Impact Statement. CBP commits to implement BMPs and environmental design measures adapted from the 2013 USCG PEA and supporting documents.

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Date

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Date