

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

**STANDARD OF CARE (SOC)
RESEARCH VESSEL OPERATIONS**

SOC Quick Reference

	Sub-section
SECTION I – PURPOSE AND PARTICIPANTS	
PURPOSE	A
APPLICABLE RESEARCH FUNDERS, AUTHORIZERS AND PARTICIPANTS	B
APPLICABLE ALASKA NATIVE MARINE MAMMAL ORGANIZATIONS	C
APPLICABLE REGIONAL AND LOCAL GOVERNMENT AND TRIBAL PARTICIPANTS	D
SECTION II – COMMUNICATION AND CONFLICT RESOLUTION PROCEDURES	
RESEARCH COMMUNITY AWARENESS AND NOTIFICATION	E
COMMUNICATION TRIGGERS AND PROCESSES <ul style="list-style-type: none"> • Communication Triggers • Pre-Season Communication Process • In-Season Subsistence Communication and Mitigation Process • Post-Season Discussion of Research and any Conflicts 	F
SECTION III – OTHER APPLICABLE COMPONENTS	
PARTNERSHIP WITH LOCAL EXPERTS	G
OPERATING IN PROXIMITY TO MARINE MAMMALS	H
MARINE MAMMAL SIGHTING DATA	I
SHARING RESEARCH FINDINGS AND CONFLICT ISSUES WITH ALASKA NATIVE ORGANIZATIONS & TRIBES	J

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

PREAMBLE

Vessel activities associated with scientific research¹ should be planned and carried out so as to minimize any potential conflict with Alaska Native marine mammal subsistence hunting activities protected by the U.S. Marine Mammal Protection Act. This Standard of Care, a component of the Arctic Waterways Safety Plan, outlines thresholds at which research participants should communicate with regional organizations, co-management organizations, or tribes prior to initiating activities in areas of active or anticipated subsistence activities. While adherence to this Standard of Care is voluntary, federal agencies made a commitment in the National Strategy for the Arctic Region to coordinate and consult with Alaska Natives and also to pursue responsible Arctic stewardship, with understanding through scientific research and traditional knowledge.

SECTION I: PURPOSE AND PARTICIPANTS

A. PURPOSE

The purpose of this Standard of Care is to provide voluntary best management practices for research vessel operators, researchers, and agency funders operating in the Arctic Waterways (Figure 1) to minimize potential conflicts (Appendix 1) between research vessel operations and Alaska Native subsistence users. This document includes:

- A pre-season process to communicate upcoming research surveys with subsistence user groups early in the planning process;
- A pre-season process to help identify areas where there is a high likelihood for potential conflicts;
- In-season protocols for real-time communications during the field season should there be a potential for conflicts; and
- Post-season mechanisms for researchers to review any conflicts and share findings with the communities.

¹ We define scientific research as a gathering of data, information, and facts for the advancement of knowledge through a methodical study in order to prove a hypothesis or answer a specific question. Scientific research is systematic and follows a series of steps and a rigid standard protocol. This document does not apply to research conducted in conjunction with spill response and damage assessment. Spill response research would be coordinated with the Trustees and communities. However, research conducted under the Natural Resource Damage Assessment would be unable to adhere to the timelines outlined in this document. If a scientific research survey has the potential to “take” marine mammals, as defined by the Marine Mammal Protection Act, a Marine Mammal Protection Act Incidental Take Authorization may be issued, which would include an additional set of mitigation and monitoring measures. The National Marine Fisheries Service or U.S. Fish and Wildlife Service (as appropriate) can provide guidance as necessary.

Arctic Waterways Safety Committee Standards of Care (SOC) Research Survey Operations

This Standard of Care does not replace existing mitigation measures or agreements². The protocols outlined here are meant to promote dialogue between vessel operators, researchers, agency funders and coastal communities, and by doing so to minimize both conflict and potential negative environmental, food security, and safety impacts for all users of the Arctic waterways.

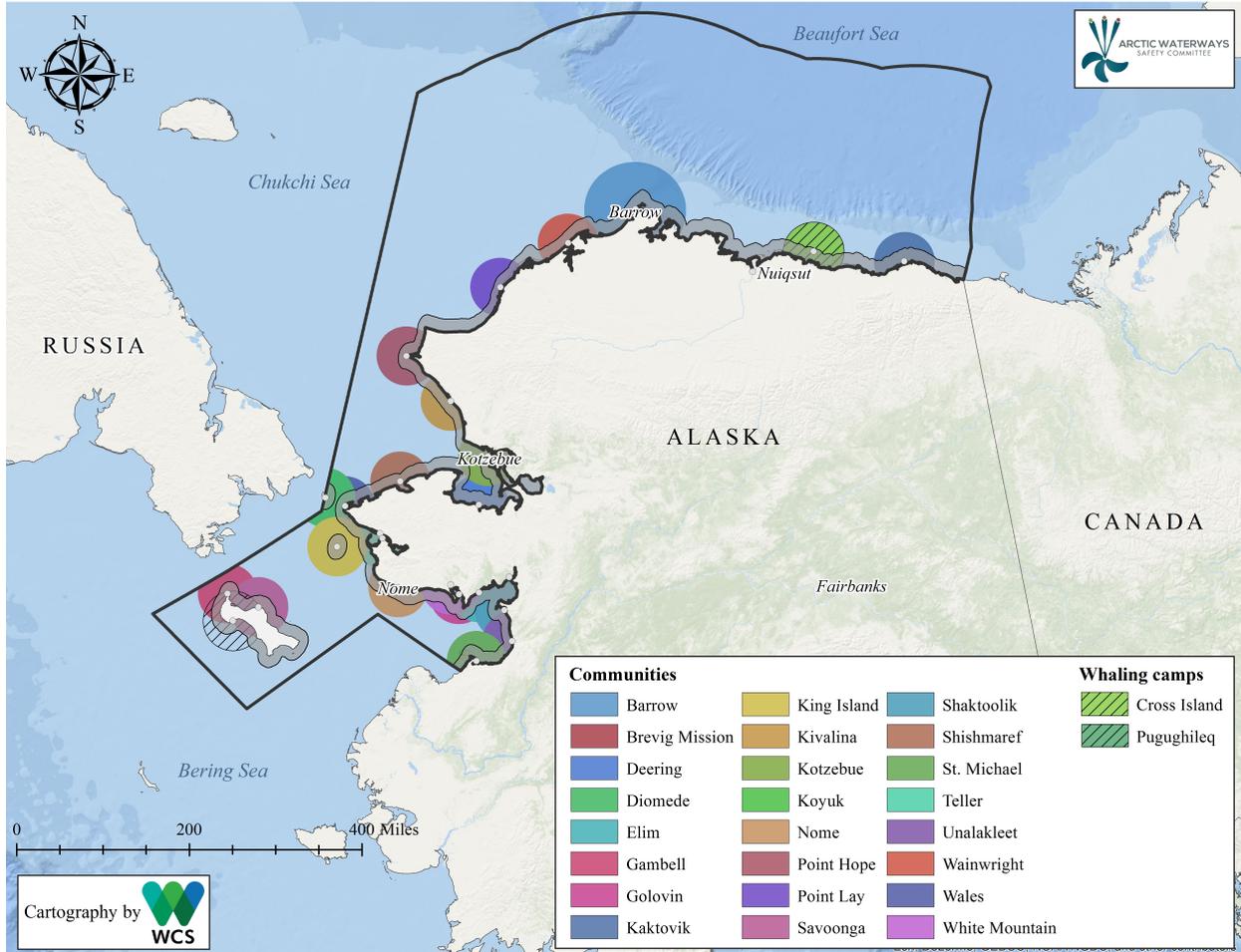


Figure 1. Arctic Waterways Safety Committee region, with communities shown with 30 nm buffers and a 12 nm buffer along the coast (where numerous summer subsistence camps are located), except for Barrow, where the proposed threshold for communication is 50 nm. The Southern border is an Alaska Native Claims Settlement Act boundary, and the western and northern boundaries are defined by the United States Exclusive Economic Zone. Puguhileq is the local name for Savoonga's spring whaling camp.

² Examples of existing agreements or measures include an Alaska Eskimo Whaling Commission Open Water Season Conflict Avoidance Agreement or any specific agency or vessel procedures in place to protect specific hunting areas and activities.

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

B. APPLICABLE RESEARCH FUNDERS, AUTHORIZERS AND PARTICIPANTS

1. Academic, State, and Federal Research Institutions
2. Foreign-Flagged Research Vessels and Department of State Authorizers
3. Federal Funding Agencies
4. Non-Federal Funding Institutions
5. Volunteer Coordination Committees: e.g., *Arctic Icebreaker Coordinating Committee*
6. Research Vessel Operators
7. Principal Investigators

C. APPLICABLE ALASKA NATIVE MARINE MAMMAL ORGANIZATION PARTICIPANTS

1. Alaska Beluga Whale Committee
2. Alaska Eskimo Whaling Commission
3. Alaska Nanuuq Commission
4. Eskimo Walrus Commission
5. Ice Seal Committee

D. APPLICABLE REGIONAL, LOCAL AND TRIBAL GOVERNMENT PARTICIPANTS

1. Regional and Local Government: North Slope Borough, Northwest Arctic Borough, City of Nome³
2. Tribal Entities: Inupiat Community of the Arctic Slope, Maniillaq Association, Kawerak, Inc.

SECTION II: COMMUNICATION AND CONFLICT RESOLUTION PROCEDURES⁴

E. RESEARCH COMMUNITY AWARENESS AND NOTIFICATION

1. Academic, State, and Federal Research Institutions: Provide summary of pending activities in areas of concern to the AWSC, including dates, locations, and source(s) of anthropogenic sound or other potential disturbances (e.g., transects) associated with the research program.⁵
2. Federal Funding Agencies: Provide Principal Investigators and Vessel Operators a copy of the Standards of Care and guidance as to its implementation.

³ The North Slope Borough, Northwest Arctic Borough, and City of Nome entered an agreement supporting the formation and work of the AWSC. The North Slope Borough created a Port Authority to facilitate infrastructure development in support of future maritime activities, including marine research.

⁴ See Appendix 3 for simplified flow chart of the procedures.

⁵ Examples and templates of how to provide this information will be made available upon request.

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

3. Principal Investigators/Vessel Operators: Assign a point of contact with responsibility for engagement with the AWSC. In most cases this would be the Principal Investigators and/or the Vessel Operators in the pre- and post-season. However, during a survey, the Vessel Operator, Field Party Leader, or Chief Scientist could be designated as the point of contact if the Principal Investigator is not aboard the vessel⁶. The onboard contact during the field season should be identified prior to departure from the initial embarkation point for the survey. This individual will communicate and coordinate with the AWSC, Alaska Native Marine Mammal Organizations, regional entities, and affected villages, as set forth in this Standard of Care.

F. COMMUNICATION TRIGGERS AND PROCESSES

1. Communication Triggers: Scientific research project contacts should initially communicate with the AWSC for research-related activities to be carried out on vessels (in either the open-water or ice-covered season) that are planned to occur within the Arctic Waterways (Figure 1), particularly where:
 - a. Activities are expected to cause conflict;
 - b. Activities occur within 50 nautical miles of Utqiabvik or within 30 nautical miles from all other coastal villages or whaling camps; or
 - c. Activities occur within a distance of 12 nautical miles from the rest of the Arctic coastline.
2. Pre-Season Communication Process:
 - a) Late Fall Prior to Research Season
 - (i) *Research Participants*: Research participants (prospectively the Principal Investigator or his/her designee) who plan to conduct vessel-based scientific research within the areas identified in Section F.1(a)-(c) of this document, may report on research proposals, draft research survey plans, and any other research-related activities at the annual fall (expected to be November or December) meeting of the AWSC to seek guidance on the need for further consultation and to identify Alaska Native Marine Mammal Organizations and other regional or tribal entities with whom to consult⁷. Principal Investigators

⁶ Field Party Leader = Head of the scientific crew. Oversees the overall science operation and plans the operation in consultation with the Master of the Ship. As the Principal Investigator's representative aboard the vessel, the Field Party Leader submits reports on a prescribed basis regarding the survey or any other matter concerning operation. Chief Scientist = The person who provides a clean line of communication between the operating crew and the scientific party. This individual is responsible for not only his or her own program but also for the projects of all scientists embarked. In addition, the personal conduct of the scientific party is under the purview of the Chief Scientist who is under the overall supervision of the Master of the Ship.

⁷ Key research principal investigators may be invited to present at these meetings. Consistent attendance by vessel operators or their representatives will help build the necessary relationships to support effective research partnerships moving forward. The AWSC will provide an opportunity to discuss each research vessel survey, identify specific conflicts, and provide guidance by consensus on the next steps for informing Alaska Native Marine Mammal Organizations, regional organizations, and/or tribes that may be impacted. A standard notification form for

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

may also provide the necessary information to NOAA's Alaska Regional Collaboration Team Leadership, who will participate in the annual fall meeting of the AWSC and will provide summaries of proposed research, as requested. Notification should be given to the AWSC Chair and Secretariat at least three weeks prior to the annual fall meeting to ensure time is allotted on the meeting agenda.

- (ii)* Research participants planning projects in the Arctic Waterways beyond the distances set forth in Section F.1(a)-(c) of this document should send a notification to the AWSC, via the Chair and Executive Secretary, at least three weeks prior to the annual fall meeting. The AWSC will advise via email on the existence of any potential conflicts with subsistence activities or marine mammal aggregations and, where applicable, additional communication may be necessary to mitigate those conflicts. In most cases no further notification or communication to the AWSC will be necessary for these projects. However, in some instances the AWSC may ask for additional details during the annual fall meeting.
 - (iii)* AWSC meeting organizers will prepare an agenda that would provide time to discuss research plans in the Arctic Waterways region.
- b) Initiate Mitigation Communications: As requested by the AWSC, for cases where potential conflicts have been identified (after presentation of the research survey plans at the fall AWSC meeting), research participants or their designee (e.g., NOAA's Alaska Regional Collaboration Team Leadership) meet with potentially affected Alaska Native Marine Mammal Organizations, regional organizations, and tribes regarding the purpose and objectives of the research; proposed vessel routing; development of mitigation measures, where needed; and instruction regarding the need for village-specific meetings⁸.
- c) Research in the Vicinity of Subsistence Communities:
- (i)* Any research activity planned to occur within the areas identified in Section F.1(b) and (c) of this Standard of Care constitutes a trigger for further communications as described in subsection ii, below.
 - (ii)* Any of the Alaska Native Marine Mammal Organizations, regional organizations, and tribes can request further communications with a Principal Investigator, who has been identified as someone leading a research program in the Arctic Waterways Safety Committee area of interest during the open water

regional and village contacts is provided by the Arctic Waterways Safety Plan based on existing protocols and forms being used by the Alaska Ocean Observing System (AOOS) Arctic Asset Registration (<http://www.aos.org/arctic-assets-registration/>).

⁸ These meetings could occur in-person or via remote methods with the guidance being to use the medium that promotes resolution of potential conflict.

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

season or time of year when conflicts are anticipated. These communications are outside of the scope of this agreement.

- d) Village and Regional Meetings: After notification at the winter AWSC meeting, and as requested by Alaska Native Marine Mammal Organizations, regional organizations, or tribes, Principal Investigators or their designees should communicate with regional or tribal representatives before, during, and post research through multi-media avenues and written reports (*see Appendix 2 for list of contacts*).
 - e) Following Development of Agreed Mitigation Measures with Potentially Affected Alaska Native Marine Mammal Organizations, Regional, and Tribal Entities: Principal Investigators or their designees should provide final survey plans at the annual spring (expected to be February or March) meeting of the AWSC, including incorporation of all mitigation measures developed through the Mitigation Process as set forth above. The plans will be in a format⁹ that can be forwarded to Alaska Native Marine Mammal Organizations and regional or tribal representatives.
3. In-Season Subsistence Communication and Mitigation Process
- a) Communications During Season: Protocols for communicating during the field season will be implemented using established communication infrastructure and networks.
 - b) Communications Protocols: Communications should occur using previously agreed to protocols that may vary by location (e.g., phone, text, email, or other means specified in the communications plan). A communication schedule should be agreed among interested parties and the Principal Investigator or designee. Each communiqué should report the following information:
 - (i) Vessel name, operator of vessel, charterer or owner of vessel, and purpose of transit;
 - (ii) Vessel location, speed, and direction;
 - (iii) Planned vessel movement between the time of the communiqué and the time of the next scheduled communiqué. The final communiqué of the day should include a statement of the vessel's general area of expected operations for the following day, if known at that time.
EXAMPLE: This is the R.V. *Sikuliaq*, operated by UAF, in the northern Bering Sea. We are currently at xxx xxx North xxx xxx West, proceeding SE at xx knots. We will proceed on this course for x hours and will report location and direction again at x time.

4. Post-Season Discussion of Research and any Conflicts

⁹ Examples and templates of how to provide this information will be made available upon request.

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

- a) Principal Investigators or their designee should provide an initial written summary of completed field work to the AWSC by November 1 regarding their activities in areas of concern, as well as conflict and compliance issues, if any. Conflicts in a season between research vessels and Indigenous subsistence hunters will be discussed and reviewed by both the Science and Subsistence sub-committees at the fall AWSC meeting and recommended actions will be passed on for consideration by the full AWSC.
- b) Principal Investigators or their designee will report on the preliminary results and findings of the project at the spring AWSC meeting the season following the research operations. Upon request by communities/tribes, researchers or their designees should also be prepared to report research results to Alaska Native Marine Mammal Organizations, regional organizations, or local communities/tribes regarding mitigation through multi-media avenues and written reports.

SECTION III – OTHER APPLICABLE COMPONENTS

G. PARTNERSHIP WITH LOCAL EXPERTS

1. Researchers are encouraged to seek funding for and retain the services of Local Experts, as defined by the community, where such research would benefit both the researcher and community by having a Local Expert present.
2. Residents of subsistence hunting villages should be given preference in the selection of Local Experts.
3. As a member of the crew, the Local Expert will be subject to the regular code of employee conduct on board the vessel and will be subject to discipline, termination, suspension, layoff, or firing under the same conditions as employees of the vessel operator or appropriate contractor.
4. The Local Expert's duties are to:
 - a) Keep a lookout for marine mammals in the vicinity of the vessel in order to assist the vessel captain in avoiding harm to marine mammals.
 - b) Carry out the communication responsibilities set forth in this document, including communication with marine mammal subsistence hunters and interpretation of communications as needed to allow the vessel operator to take such action as may be necessary to avoid conflicts.
 - c) The Local Expert will maintain a record of all communications made or received by the Local Expert, including ship-to-shore and communications with subsistence hunting boats, as well as any marine mammal sightings made by the Local Expert.

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

H. OPERATING IN PROXIMITY TO MARINE MAMMALS

While the focus of this Standard of Care is on minimizing conflict between Alaska Native subsistence activities and research vessels, indirect impacts on subsistence can occur when marine mammals are disturbed. For example, whales can become more skittish and harder to hunt as a result of disturbance. Consequently, outside of some permitted research directed at specific marine mammals (e.g., tagging), adhering to the following guidelines will reduce indirect impacts to subsistence communities.

1. Vessels should be operated at speeds necessary to ensure no physical contact occurs with marine mammals, particularly whales. Furthermore, vessels should be operated in a manner that minimizes potential conflicts with marine mammals or subsistence hunters (e.g., vessel speeds should be less than 10 knots in the proximity of feeding whales or whale aggregations).
2. If any vessel inadvertently approaches within 0.8 kilometers (0.5 mile) of observed bowhead whales, except when providing emergency assistance to whalers or in other emergency situations, the vessel operator will take reasonable precautions to avoid potential interaction with the bowhead whales, which may include:
 - a) Reducing vessel speed to less than 5 knots within 900 feet of the whale(s);
 - b) Steering around the whale(s) if possible;
 - c) Operating the vessel(s) in such a way as to avoid separating members of the group;
 - d) Operating the vessel(s) to avoid causing a whale to make multiple changes in direction;
and
 - e) Checking the waters immediately adjacent to the vessel(s) to ensure that no whales will be injured when the propellers are engaged.

I. MARINE MAMMAL SIGHTING DATA

1. As is current practice, Principal Investigators, vessel operators, or their designee should submit all sightings of injured or dead marine mammals to NOAA. NOAA will make this information available to the AWSC.
2. Marine mammal sighting information from research vessels will not be made available to the AWSC or Alaska Native Marine Mammal Organizations in real time.

J. SHARING RESEARCH FINDINGS AND CONFLICT ISSUES WITH VILLAGES AND ALASKA NATIVE MARINE MAMMAL ORGANIZATIONS

1. Funders of maritime research activities are encouraged to share results of the research project with local communities in proximity to the marine activities. Examples of venues include:
 - a) Arctic Waterways Safety Committee Meetings

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

- b) Alaska Eskimo Whaling Commission Meetings
 - c) Eskimo Walrus Commission Meetings and Hunter Meetings on St. Lawrence Island
 - d) Alaska Beluga Whale Committee Meetings
 - e) Ice Seal Committee Meetings
 - f) Kawerak, Inc. Meetings
 - g) Maniilaq Association Meetings
 - h) Inupiat Community of the Arctic Slope (ICAS) Meetings
 - i) UAF Northwest Campus and Alaska Sea Grant (Nome)
2. Previous year's information outputs should be made available upon request by user groups. In addition, data collected by Federal agencies or research funded by Federal agencies will be made available to the public following established policies (e.g., Public Access to Research Results). Typically, these policies require all digital information to be made available through a public data portal within 12 months of collection.

**Arctic Waterways Safety Committee
Standards of Care (SOC) Research Survey Operations**

APPENDIX 1

TYPES OF CONFLICT CONCERNS

Researchers, agency staff, and funders can inform themselves about many of the potential conflicts through summary documents [such as the Alaska Eskimo Whaling Commission Open Water Season Conflict Avoidance Agreement, Arctic Marine Shipping Assessment] and Alaska Native Marine Mammal Organization websites. Conflicts may include, but are not limited to:

1. Endangerment of people engaged in subsistence activities due to vessel transit and wakes or other movements in open water, broken ice, or while ice breaking;
2. Disturbance of subsistence activities, including deflecting animals away from hunting areas or causing animals to become skittish so that hunting is more difficult or dangerous;
3. Ship strikes to marine mammals in migration corridors, particularly for large cetaceans;
4. Disturbance or strikes to marine mammals in feeding aggregations;
5. Disturbance or strikes to marine mammals in resting aggregations (e.g., disturbance of walrus at coastal haul-outs with vessels close to shore).

The Standard of Care acknowledges the two critical components required to successfully implement the operating and communication guidelines codified in this document. They are: 1) adequate communication between subsistence communities and researchers and 2) adequate logistic capacity to support productive communications. This protocol provides clarity as to what constitutes effective communication and acknowledges limited logistic capacity in many regions.