

SEAL & WALRUS HUNTING SAFETY

TRADITIONAL KNOWLEDGE
FROM KAWERAK'S
ICE SEAL AND WALRUS PROJECT



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KAWERAK, INC.

Social Science Program
Natural Resources Division
Kawerak, Inc.

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CONTRIBUTORS: Freida Moon-Kimoktoak, lead author and Social Science Program research assistant; Lily (Ray) Gadamus, editor, project research lead and Social Science Program geographer; Julie Raymond-Yakoubian, editor, project development and funding, Social Science Program director; Lisa Ellanna-Strickling, Helen Pootoogooluk, and Edwina Krier, research assistants; Maggie Kowchee, Jotilda Noongwook, Ruby Booshu and Serena Walker, transcribers.

GRAPHIC DESIGN: Carol Gales

LOCAL RESEARCH ASSISTANTS: Paul Nagaruk, Johnny Anasogak, Carrie Takak, Nicholas Lupsin, Vincent Matthias, George Noongwook, and Robert Soolook

PARTICIPATING TRIBES: Stebbins Community Association, Native Village of Saint Michael, Native Village of Elim, Native Village of Koyuk, Native Village of Savoonga, Nome Eskimo Community, Native Village of Shaktoolik, Native Village of Diomedea, King Island Native Community

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TRADITIONAL KNOWLEDGE CONTRIBUTORS

DIOMEDE: Arthur Ahkinga, Alois Ahkvaluk, John Ahkvaluk, Jerry Iyapana, Patrick F. Omiak Sr., Frances Ozenna, Ronald Ozenna Jr., Edward Soolook, Robert F. Soolook Jr.

KING ISLAND: Wilfred Anowlic, Jimmy Carlisle, Hubert Kokuluk, Joseph Kunnuk, John Penatac Sr., Vince Pikonganna, John I. Pullock

SAVOONGA: Arnold Gologergen, Larry Kava, Kenneth Kingeekuk, Chester Noongwook, George Noongwook, Morris Toolie Sr., Raymond Toolie, Clarence Waghiyi

NOME: Austin Ahmasuk, Daniel Angusuc, Roy Ashenfelter, Bivers Gologergen, Albert Johnson, Frank L. Johnson II, Stan Piscoya

ELIM: Wallace J. Amaktoolik Jr., Eric F. Daniels Sr., Fredrick L. Daniels, John Jemewouk, Elizabeth H. Kotongan, Kenneth L. Kotongan, Paul Nagaruk, Sheldon Nagaruk, Victor J. Nylin Sr., Charles F. Saccheus, Charles F. Saccheus Jr., Joel Saccheus, Ralph J. Saccheus, Russell M. Saccheus Sr.

KOYUK: Georgianne Anasogak, Johnny Anasogak, Oscar D. Anasogak Sr., Clifford B. Charles, Kenneth W. Dewey Sr., Merlin Henry, Franklin Hoogendorn, Kimberly Kavairlook, Esther R. Kimoktoak, Patrick Kimoktoak, Sophie Milligrock, Roger Nassuk Sr., Ruby Nassuk

SHAKTOOLIK: Axel Jackson, Edgar M. Jackson Sr., Van Katchatag, Franklin Paniptchuk Jr., Reuben Paniptchuk, Hannah A. Takak

SAINT MICHAEL: Joe Akaran, Martin Andrews, Victor Joe, Nicholas Lupsin, James Niksik Sr., Damien A. Tom, Albert A. Washington

STEBBINS: Allen M. Atchak Sr., Gabriel J. Bighead, Albert J. Bogeyaktuk Sr., Hermes Dan, Kellen Katcheak, Theodore Katcheak, Peter P. Martin Sr., Alexis Matthias, Isaac Nashoanak, Morris L. Nashoanak Sr., Ryan Nashoanak Sr., Anthony Niksik, Leonard L. Raymond Sr., Joseph Willie.

TRADITIONAL KNOWLEDGE CONTRIBUTOR PHOTOS

Below are photos of just a few of the 82 hunters and elders in nine tribes who shared their time and expertise in order to make this publication possible.



Arthur Ahkinga, Diomede
(Photo: Edwina Krier)



Alois Ahkvaluk, Diomede
(Photo: Edwina Krier)



John Ahkvaluk, Diomede
(Photo: Julie Raymond-Yakoubian)



Patrick Omiak, Diomede
(Photo: Edwina Krier)



Ed Soolook, Diomede
(Photo: Edwina Krier)



Robert Soolook, Diomede
(Photo: Edwina Krier)



Vince Pikonganna, Nome
(Photo: Amy Russell-Jamgochian)



Arnold Gologergen, Savoonga
(Photo: Lily Gadamus)



Larry Kava, Savoonga
(Photo: Julie Raymond-Yakoubian)



Chester Noongwook, Savoonga (Photo: Julie Raymond-Yakoubian)



Clarence Waghiyi, Savoonga (Photo: Lily Gadamus)



Austin Ahmasuk, Nome (Photo: Austin Ahmasuk)



Roy Ashenfelter, Nome (Photo: Lily Gadamus)



Bivers Gologergen, Nome (Photo: Freida Moon-Kimoktoak)



Frank Johnson II, Nome (Photo: Lily Gadamus)



Paul Nagaruk, Elim (Photo: Lily Gadamus)



Sheldon Nagaruk, Elim (Photo: Lily Gadamus)



Georgianne Anasogak, Koyuk (Photo: Julie Raymond-Yakoubian)



Kenneth Dewey Sr., Koyuk (Photo: Freida Moon-Kimoktoak)



Merlin Henry, Koyuk (Photo: Edwina Krier)



Kimberly Kavairlook, Koyuk (Photo: Edwina Krier)



Esther Kimoktoak, Koyuk
(Photo: Freida Moon-Kimoktoak)



Roger Nassuk Sr., Koyuk
(Photo: Edwina Krier)



Edgar Jackson Sr., Shaktoolik (Photo: Lily Gadamus)



Van Katchatag, Shaktoolik
(Photo: Freida Moon-Kimoktoal)



Joe Akaran, Saint Michael
(Photo: Lily Gadamus)



Nicholas Lupsin, Saint Michael (Photo: Julie Raymond-Yakoubian)



Damien Tom, Saint Michael (Photo: Lily Gadamus)



Albert Washington, Saint Michael (Photo: Lily Gadamus)



Allen Atchak, Stebbins
(Photo: Lily Gadamus)



Peter Martin Sr., Stebbins
(Photo: Julie Raymond-Yakoubian)



Morris Nashoanak, Stebbins (Photo: Lily Gadamus)



Leonard Raymond, Stebbins (Photo: Lily Gadamus)

PREFACE

The indigenous people of the Bering Strait have inhabited this region since time immemorial, surviving in a harsh climate and living off the rich resources of the land and water. Families have been raised on these lands and deep roots have been sown, binding close-knit communities along the coast and on the islands of the Bering Sea. Meals are shared, celebrations held and stories told. This culture is built on the foundation of family. These are the people of the Bering Strait region.

As with any culture around the world, we are not sheltered from hardship or tragedy. Our people, both in the past and in modern times, have sometimes had accidents while practicing our subsistence way of life. This loss is real

and tragic; the people are our family and friends. It's a father, a husband, a son who has gone out to put food on the table and has not made it home safely or, in many cases, has not made it home at all.

Over the centuries our ancestors, the people with direct blood ties to us, have learned through experience the most effective ways of survival. To help their people live prosperously, they have shared this knowledge, which has been passed down and practiced for countless generations. In no way are these lessons a boastful proclamation. Instead, they are a humble acknowledgement of the dangers a hunter faces and the life skills one must learn.

Today, the introduction of new technology and modern equipment has changed some aspects of subsistence. Aluminum boats, outboard motors and rifles are a few major examples. Today's



Bringing home a seal. (Photo: P28-170, Alaska State Library, Lomen Brothers Photograph Collection)

hunter exists in a remarkable time period. Our grandparents, just a step back in time, were raised in the old ways of skin boats, oars and spears. At the doorstep of the transition from ancestral ways to those influenced by western culture, today's elders have firsthand knowledge of the old ways.



Maintaining a skin boat for seal and walrus hunting.
(Photo: Eskimo Heritage Program Archives)

Another change seen by our elders is new patterns of weather and ice conditions, which many attribute to climate change. Unpredictable weather, for instance, as well as thinner ice, the absence of old ice, later freeze-ups and earlier breakups have been observed.

Even though our region has seen major changes in the environment and in technology, traditional knowledge is still very important for hunters. Elders and experienced hunters can share knowledge of how to hunt successfully and come home safely. Staying safe means learning to observe the environment and marine mammals in traditional ways as well as using modern tools such as GPS and life jackets. Stories from our elders can help us understand the power of the ocean and the environment and can teach us how to avoid or survive dangerous situations. Safety is a tested survival strategy in our region!

***Freida Moon-Kimoktoak, Research Assistant
Social Science Program, Kawerak, Inc.***

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Testing the ice. (Photo: Brandon Ahmasuk)



Taking a coffee break. (Photo: Austin Ahmasuk)

INTRODUCTION

The information in this book was gathered in 2010-2012 as part of the Kawerak Social Science Program's *Community-Based Documentation of Ice Seals and Walruses* project. The project goal was to document traditional knowledge of seals and walruses from hunters and elders in this region. Nine tribes and eighty-two hunters and elders participated in this project.

At the beginning of the project, Social Science staff held community meetings and attended IRA meetings. We presented the project and asked what kind of traditional knowledge we should document.

Many people told us that marine hunting safety was a very important topic. Elders wanted traditional knowledge of safety documented so that it would be easier to share with youth.



Chester Noongwook of Savoonga, Ice Seal and Walrus Project participant
(Photo: Lily Gadamus)



Damien Tom, Albert Washington, and Joe Akaran review project maps in Saint Michael. (Photo: Lily Gadamus)

When we conducted interviews and focus groups with elders and hunters across the region, we included questions on safety. We heard amazing stories about traveling on the ocean in moving sea ice, and participants

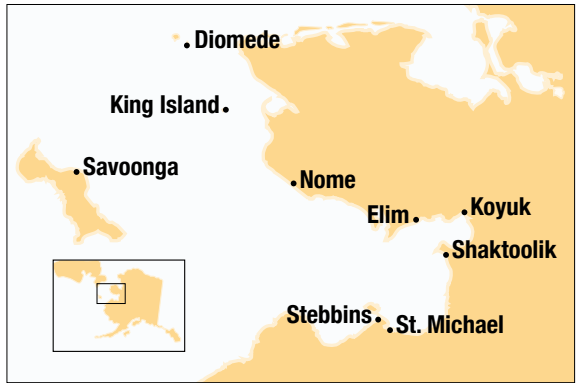
explained how hunters can prevent accidents using traditional knowledge as well as modern technology.

Interviews were recorded and later transcribed (typed up on the computer). We went through the interview transcripts, pulled out the information on safety, and organized it for this book.

All of the information in this book comes from project participants. Direct quotes are in italics and are attributed to individuals throughout the text. Other information, including the summaries and bullet points, is summarized from multiple individuals.

This book contains hunter and elder knowledge about preparation before going out, gun safety, animal behavior, weather, ice safety, and ocean

safety. Hunting strategies include exercising caution around marine mammals, observing weather to know when to head home, staying safe in moving ice, and survival techniques to use if you become stranded. These are just examples of the knowledge used to stay safe in our region.



Hunters and elders from nine communities contributed their knowledge for inclusion in this book.

Safety and hunting practices vary throughout the Bering Sea. The wind, ice, currents and traditional use patterns differ in each community. Quotes here are collected from hunters in nine communities. Some tips may not apply to all people or places. The goal of this book is to start discussions on safety. You can always learn more by talking to the hunters and elders you know. Participants said that if you don't know something, it is always best to ask.

PREPARATION

Hunters need to prepare carefully in order to hunt safely and successfully. There are many things to consider when preparing for a hunting trip, a day-long outing with the family for berry picking, or any other travel on the land or water. It is important to think about how things could go wrong in order to be prepared. Hunters have provided examples of the hunting, boating, and navigational tools needed, as well as ideas for clothing, food, and emergency shelter. They have also provided advice on what to do before going out. It is important to take hunting seriously, to be alert, and to ask for advice from experienced hunters.

You have to pay close attention to your surroundings every minute that you're hunting. You never know what's going to come up; you never know what's around the bend.—Vincent Pikonganna, King Island

We wear adequate hunting clothing and have rain gear on hand, even when we are stepping out for a second.—Savoonga Elders Focus Group



Maintain your gear so that it is in good condition when you are out hunting or travelling. (Photo: Kawerak Eskimo Heritage Program)

THINGS THAT CAN GO WRONG

- It is important to prepare for emergencies. Every hunting trip is different, and unexpected things can happen. The weather can turn bad, outboard motors can break down, and hunters can become lost or get trapped in moving ice. Snowmachines can break down and get stuck in overflow. Hunters should be prepared to deal with these situations.

I've been lost a few times and had motors break down quite a bit. In a skin boat you're barely moving. Today I tell my crew we're going to break down in style with a fast motor and boat. If you drift or paddle, someone will find you after a while. I take flares, a radio, GPS.

—**Ronald Ozenna Jr., Diomede**

BEFORE HEADING OUT

Make a hunting plan when you are going out. Let someone know where you're going and when you're going to be back. Try and stick with that plan.—**Joe Akaran, Saint Michael**

- ▶ Always let someone know where you are going and when you plan to return.
- ▶ Ensure that all your equipment is working properly and your gear is functional.
- ▶ Know how to use hunting equipment properly so that you do not injure yourself.
- ▶ Get enough rest before you go on a hunting trip. You need to be alert and aware of your surroundings at all times.
- ▶ Bring proper ear protection to prevent hearing loss.
- ▶ Never drink alcohol while out in the wilderness.
- ▶ Be aware of places that regularly have thin ice. Eddies under the ice are dangerous; know where they are located and how to avoid them.
- ▶ Know where staked trails are located.



Always use ear protection when hunting. (Photo: Kawerak Subsistence)

Make sure you check everything properly and if you don't know what you're doing, ask somebody.—**Daniel Angusuc, Nome**



When you go out hunting, bring safety supplies including a VHF radio, GPS and compass, firestarter, knife, flashlight, first aid kit, and signal flares. (Photo: Lily Gadamus)

SAFETY IN NUMBERS

Be sure to help out other hunters when they need help. You don't need to go that far from each other; if something goes wrong there's always a boat close by. — **Edward Soolook, Diomedé**

HUNTING IMPLEMENTS

- ▶ A walking stick is used to test an intended path on the ice for safety from hazards such as seal holes, cracks in the ice, and slush. A walking stick can also be used as a pull-up bar if you fall through the ice; place the walking stick across the hole in the ice and use it to pull yourself out.
- ▶ Throwing line to retrieve animals.
- ▶ Harness and webbing. Webbing used for dog harnesses makes good harnesses for dragging seals.
- ▶ Firearms and extra ammunition.

- ▶ A hunting knife.
- ▶ A harpoon.

BOAT NECESSITIES

For safety, I recommend you bring flotation devices for boating. I tell my crew to bring PFDs (personal flotation devices). If they don't, they stay—I'm sorry.—Damien A. Tom, Saint Michael

- ▶ Paddles/oars.
- ▶ Extra outboard motor.
- ▶ Extra gas.
- ▶ Flotation devices.
- ▶ Extra boat propeller.
- ▶ Tools for engine repairs.
- ▶ Bailer or small bucket to bail out water from boat.



Always wear a float coat or other personal flotation device when boating. (Photo: Julie Raymond-Yakoubian)

- ▶ Tarp which can be used as a cover, spread to collect water, or rigged to use as a sail.
- ▶ Extra spark plugs.
- ▶ Iso-Heet (water displacement for gas).

Azigutaghqaghhaq: *Saint Lawrence Island Yupik term for something to use as shelter in case of bad weather, such as a tarp.*

CAMPING NECESSITIES

Take enough gas and food because sometimes the ice closes in and blocks you in. Before my wife and I got married we went on a picnic in the spring down towards the cape. We couldn't come back because of the ice floe—we didn't have enough gas to make it around and we couldn't pass through the floe. So, on that picnic trip

we ended up spending four days on the cliff.—**Wallace Amaktoolik Jr., Elim**

Some camping necessities:

- ▶ Matches, lighters, flint, steel wool.
- ▶ Axe.
- ▶ Small camping stove.
- ▶ Coffee pot or metal container to heat water.



Always bring a tarp for shelter and plenty of food, as you may be out longer than you expect. (Photo: Brandon Ahmasuk)

CLOTHING NECESSITIES

- ▶ Adequate warm clothing is vital for survival in our harsh climate. Even if it is warm out, always bring warm clothes. You do not know what is going to happen while you are out there.

The way we dress: When we went out in the country we wore layered clothing: a t-shirt, sweater, then a light jacket and a heavier jacket over that. That way, once you go out in the country and start sweating you can take your parky off and still have a jacket on underneath to wear. When you're ready to travel again just put your

parky back on. That way you don't get cold.—**Sheldon Nagaruk, Elim**



It is important to bring warm clothes, even on a hot sunny day. (Photo: Brandon Ahmasuk)

Clothes to bring include:

- ▶ Extra clothing, including mittens, sweaters, change of clothes, socks.
- ▶ Jacket.
- ▶ Snow pants.
- ▶ Warm parka.

- ▶ Waterproof and windproof jacket.
- ▶ Survival suits are recommended.
- ▶ Mukluks or warm boots.
- ▶ Rain gear.

COMMUNICATION TOOLS

- ▶ Radio, satellite phone, VHF, CB, ham radio, fog horn, whistle, AM/FM radio.

*The fog is always a factor in the springtime. When I was a young man, before I started hunting, we had horns that you pump and blow. The people in the village on King Island would start expecting the hunters to return home and we would run to the store where the pump was and they would blow the horn. There were four of them and us boys would try to beat each other to one of the horns so we would get to blow the horn They worked really well for the hunters; they could hear them.—**John Pullock, King Island***

NAVIGATIONAL TOOLS

If you're hunting near Nome you just need to point your compass north and you will hit the beach.

—Roy Ashenfelter, Nome

Since there was no compass back in the days, we were taught to look at the stars as a compass or guide during the night. When the weather is bad or a blizzard develops they told us to dig for grass. When it is north wind, the grass gets frozen which indicates that it is north wind



Ed Soolook demonstrates navigation tools: a compass and a GPS. (Photo: Edwina Krier)

so if you dig down to the frozen grass beneath the snow you can determine which direction is north. Now it's very different; they have GPS and a compass to guide them.—**Morris Toolie Sr., Savoonga**

- ▶ Bring GPS, maps, and a compass.
- ▶ Know your country to recognize landmarks and find your way home.



Bring a GPS and extra batteries. (Photo: Jack Gadamus)

- ▶ There were no compasses in traditional times and people were taught to look at the stars as a compass during the night.
- ▶ You can use the sun or moon as a navigational aide, as these are visible even when stars cannot be seen.

DISTRESS SIGNALS

- ▶ Flares.
- ▶ Holding up a stick with a buoy attached to it.
- ▶ Volley shots are a distress signal; fire three consecutive gunshots.
- ▶ Strobe light.
- ▶ Mirror.
- ▶ Gas on water.



A thermos with coffee or tea can keep you warm while out hunting. (Photo: Austin Ahmasuk)

FOOD

- ▶ It is important to take plenty of water.
- ▶ It is a good idea to take hot water or coffee in a thermos to warm you if you become chilled and to stay alert.

Kelqutkaghhaq: *Saint Lawrence Island Yupik term for food and safety necessities brought along when hunting.*

- ▶ Traditional food such as walrus, seal, and whale are recommended because they will keep you warm and full.
- ▶ Bring more than enough food to last during your planned trip.

EMERGENCY SHELTER

- ▶ If you break down, stay with your snowmachine.
- ▶ During a blizzard, dig in the snow for shelter from the storm.
- ▶ Know where shelter cabins are located.
- ▶ Use your boat as a shelter.



With a shovel and a saw you can build a snow shelter in an emergency. (Photo: Jack Gadamus)

GUN SAFETY

Teaching and practicing gun safety is vital. Careless gun handling has caused unintended injury and death. Attentiveness can prevent tragedy. Gun safety is one of the first things a young hunter must learn before departing on a hunting trip.

It is important to avoid hearing loss by using proper ear protection. You can lose your hearing if someone shoots near you and you are not protected.

Things can get confusing when boating or approaching game, so is important to keep rifles unloaded, to never point them at people, to know where everyone is in the boat, and to watch for other boats.

Below are strategies that hunters have shared for using guns safely.

GUN SAFETY MEASURES IN A BOAT

Never point your rifle towards a person. I lost my hearing—somebody shot right by my head. I started bleeding right there. When I'm in the boat hunting and somebody points like that I yell at them not to shoot. It's real loud; in fact, I blacked out that time.—Ralph J.

Saccheus, Elim

- ▶ Bring proper ear protection to prevent hearing loss.
- ▶ Ensure there are no bullets in the chamber when you go out hunting. Only load the rifle when you are ready to shoot. Know where everyone is before you load your rifle. Look out for other boats.



Wear ear protection, and always make sure your gun is pointing away from other people in the boat. (Photo: Kawerak Subsistence)

- ▶ Never point your rifle toward a person.
- ▶ Never shoot toward a boat.
- ▶ Unload your gun after hunting.
- ▶ Keep your bullets dry.
- ▶ Always clean your gun after a hunt.

GUN SAFETY MEASURES WHILE SHOOTING AT GAME

*We were in the middle of the ice butchering our walrus ... we heard shots everywhere. Another boat crew was shooting towards us. I told the guys to lie down in between the walrus because they would be shooting rifles and I don't think the bullets would pierce all the way through the walrus.—**Daniel Angusuc, Nome***

- ▶ Always be cautious when shooting at game; your bullet can ricochet and hit an unintended target.
- ▶ Watch for other boats, especially in the fog.
- ▶ Stay calm and observant.

BASIC GUN SAFETY MEASURES

- ▶ Never point your gun toward anyone.
- ▶ Always carry your gun pointing up.

ANIMAL BEHAVIOR

Hunters who have spent time observing marine mammals acknowledge their intelligence. They have recognized the protective behaviors that a mother will use when defending her young and the defensive characteristics a juvenile walrus will display guarding its own kind. Herds will surround their dead or wounded and take them into the water.

By reading a marine mammal's body language or noises, a hunter can recognize aggressive behavior. An aggressive mammal is dangerous and must be avoided. Large groups of walrus are also dangerous. If attacked by a walrus, a hunter can poke it in the whiskers or shoot into the water.



Hunting walrus can be dangerous. (Photo: Gay Sheffield)

A hunter must be aware and observant of their surroundings at all times, as carnivorous walrus can sneak up on boats. Good



Ribbon seal. (Photo: Dave Withrow, Alaska Fisheries Science Center, NOAA Fisheries)

observational skills and knowledge of animal behavior also help hunters choose the right animals and successfully target and retrieve them.

Below is information about seal and walrus behavior documented from hunters and elders.

WALRUSES

Walrus are a very powerful animal.—Austin Ahmasuk, Nome

Just like humans, you got some that are pretty aggressive and some that are pretty calm and laid back.—Bivers Gologergen, Nome

BEWARE OF BIG HERDS

When there's a large herd of swimmers we've been told to leave them alone. We don't go near them because they can poke a hole in your boat.—Joseph Kunnuk, King Island



Large groups of walrus in the water can be dangerous. (Photo: Julie Raymond-Yakoubian)

WATCH OUT FOR SNEAKY WALRUSES

You have to be alert—there are some walrus that will come up to the side of your boat.—John Ahkvaluk, Diomede

If you're on thin ice you have got to be careful because if carnivorous walrus happen to be in the area they may come under you with their tusks and poke a hole in the ice. They may want to chase you. Always have your ice pick handy—that is the main thing.—Arnold Gologergen, Savoonga

YOUNG BULL WALRUSES

The young ones, the short-tusk ones, are bad; that's what we watch out for—they are really aggressive. We call them teenagers or young adults. They are big, they are not small and they are real strong.

—**Joseph Kunnuk, King Island**



Young bull walrus with short tusks can be bold and aggressive. (Photo: Kawerak Subsistence)

MOTHERS DEFEND THEIR YOUNG

► When a walrus calf is shot, the adult cow will not go away.

I guess any animal will protect their young one with everything

they got. —**Wallace**

Amaktoolik Jr. Elim



Walrus cows with calves are very dangerous because they will aggressively protect their young. (Photo: Kawerak Subsistence)

I've seen mothers panic and leave their calf on the ice. They get a little aggressive. You take your oar and push the calf in the water so the mother can find it and then you move on.

—**Jimmy Carlisle, King Island**

SEAL-EATING WALRUSES

Other walrus become carnivorous, and they can eat other marine mammals, mostly seals. They were orphaned when they were young and they didn't learn to eat properly, so, that's what they eat, seals. Angeyeghaq, that is what they call them. —**Morris Toolie Sr., Savoonga**

Angeyeghaq: Saint Lawrence Island Yupik term for a walrus that eats seals.

Kiningaq: Stebbins Yup'ik term for a walrus that eats seals.

I was told to watch out for (seal-eating walruses).

—**Morris L. Nashoanak Sr., Stebbins**

INJURED WALRUSES

You can go right up to walrus, but make sure you stay far enough away where it won't get you with its tusks. Our driver went right up to the walrus while

we were trying to harpoon it. He went right behind the bow of the boat ... and when we looked there was a big hole in the bow of the boat. So you never get too close to your walrus, especially when it's crippled. They will fight back.—**Wallace Amaktoolik Jr., Elim**

SIGNS OF AGGRESSION

I asked an old man, "Why can't we hunt that loner (walrus)?" He said, "Look, observe him. When he starts swaying his arms around, bending around, that's his way of saying, 'I'm going to get to you'." You have to recognize if they're going to be aggressive.—**Leonard L. Raymond Sr., Stebbins**

They'll rub their noses together and go down—go to you and charge after they rub their noses together.—**John Ahkvaluk, Diomedede**

WALRUSES DEFEND EACH OTHER

I've seen siblings take their siblings down under water. They just pick them up, just stick them under, even though they're dead. Walrus pop up and take it down. No benefit gained, because they're so protective of family.—**George Noongwook, Savoonga**

Going after walrus on the ice is the same thing. You watch the walrus in the water. When you shoot a walrus on the ice you have to pull the boat up on the ice right away. You have to be very, very careful. Even the big ones attack sometimes.—**Patrick Omiak Sr., Diomedede**

Walrus usually have a guard swimmer that normally swims around the main herd, making sure that predators like a killer whale doesn't come around their family pod.—**Morris L. Nashoanak Sr., Stebbins**

IF YOU ARE ATTACKED BY A WALRUS

Imitate a killer whale.

If you stick your oars on the side of the boat, they will think it's a killer whale and they won't touch the boat. Or you touch the walrus and they'll go away. They don't like that at all.—**John Ahkvaluk, Diomedede**

Touch their whiskers

- ▶ Poke aggressive walruses in the whiskers.
- ▶ If you poke walruses on the nose with your paddle, they will turn around and go.



Walruses have very sensitive whiskers. If approached by an aggressive walrus, poke it in the whiskers. (Photo: Kawerak Subsistence)

Push them away

My uncle told me that if walrus are aggressive towards you to use your paddle. Either push them away or make noise on the water by your boat. Once a great big walrus came right next to me, I was sitting in the boat. It was just like a big monster—holy cow! My uncle pushed him away. You have to just let those things swim away from you.—**John I. Pullock, King Island**

From what I've heard in the past from an elder is if a walrus puts his tusk over the side of your boat, you go over and grab his tusk, lift it up and put him back in the water so he won't tip the boat over.

—**Damien A. Tom, Saint Michael**

Make Noise

If a walrus is really aggressive, you shoot next to it in the water—not at it—to try to scare it off.—Bivers Gologergen, Nome

- ▶ Try starting your motor to scare walruses away.
- ▶ Throw chunks of ice at walruses to try and drive them off.

Escape

- ▶ If a walrus is charging you, start your motor and drive away.

AGGRESSIVE BEARDED SEALS

- ▶ Bearded seals are extremely strong and will defend their young fiercely.

Female ugruk, if they have young ones, they can jump out of the water and they are pretty heavy. I'm sure they would jump into the boat. We've been told to be careful when we catch a young one because the mother will try to tip your boat over.—Morris L.

Nashoanak Sr., Stebbins

When you cripple an ugruk they can be dangerous. My dad told me a story of long ago about the ugruk—their arms can reach a long ways, and it flipped a boat. Keep an eye on the ugruk. It's best to kill it right away.—Franklin Paniptchuk Jr., Shaktoolik



Bearded seals are large, powerful animals and hunters should be cautious. (Photo: Brandon Ahmasuk)

Some ugruks can break through ice if they've got young ones.

Once a mother came and started bumping the boat. They protect their young. I watch myself when I'm out there.—**Damien A. Tom, Saint Michael**

BEARDED SEALS MAY NOT DIE RIGHT AWAY AND CAN DRAG HUNTERS AND BOATS UNDERWATER

The hunter had a line on his hand and he harpooned it. That ugruk came alive and dragged him down—they never did find him. Even when you harpoon, don't put your foot on the harpoon line. That's one thing you have to watch.—**Kenneth L. Katoongan, Elim**

I know of at least one that went out ugruk hunting with a boat that was too small. When he harpooned it, the ugruk just bagged them under, boat and all. When you hunt ugruk it's best to have a long rope and do not tie it to your boat. Have a harpoon with a loose buoy; you can throw the buoy out after you harpoon it. Here we always try to get them on top of the ice. When you shoot them in the water they'll die quick and sink.—**Wallace Amaktoolik Jr., Elim**

Wait a few minutes to make sure the seal is dead. I know the ugruk, especially—it takes a long time for them to die.—**Wallace Amaktoolik Jr., Elim**



Bearded seals are very powerful. Make sure not to get tangled in the line. The death throes of a bearded seal while harpooned can still be powerful enough to injure. (Photo: Austin Ahmasuk)



Upper left: Bearded seal (Photo: Michael Cameron, Alaska Fisheries Science Center, NOAA Fisheries).

Upper right: Ringed seal (Photo: Kate Stafford, North Slope Borough).

Center: Walrus haul-out (Photo: Gay Sheffield). **Lower left:** Ribbon seal (Photo: Josh London, Alaska Fisheries

Science Center, NOAA Fisheries). **Lower right:** Spotted seal (Photo: John Jansen, Alaska Fisheries Science Center, NOAA Fisheries)

WEATHER DANGERS AND PREDICTION

Weather determines a hunter's schedule. Each hunter has likely been caught in undesirable weather conditions and knows the power of Mother Nature. High winds are a major weather threat. On water, the winds create dangerous waves, and wind can also break up or pile up the ice.

Hunters should check the weather before going out and stay observant while hunting. A hunter has many ways to read the sky



Try to hunt in good weather! (Photo: Brandon Ahmasuk)

and landscape to predict winds, from the color of the mountains to the shape of the clouds. Dark, feathery, and lens-shaped clouds, as well as cloud caps on mountains, can indicate that strong winds are coming.

Hunters also need to remember landmarks in case they get lost in fog, and they can watch the sky to avoid getting chilled by spring rains. Rings around the sun and moon, as well as unusual seal behavior, can indicate a storm is coming. Elders in this region learned to read the weather in order to stay safe, and some of this knowledge is described below. Ask hunters and elders in your community for local weather prediction advice.

Hunters also need to remember landmarks in

remember landmarks in

Nigilak: Saint Lawrence Island Yupik term for when the sun has a red hue, indicating that a storm is coming.

WIND

- ▶ When the wind starts blowing, turn around and go home.
- ▶ Talk to hunters in your community to learn which wind directions are most dangerous at different times of year.

Salggaghta: *Saint Lawrence Island Yupik term for the sudden onset of strong winds.*

To me, the wind is the most dangerous condition to be out in. The stronger the gusts of wind, the more dangerous because the waves get much more turbulent.—**Roy Ashenfelter, Nome**

Types of dangerous winds

- ▶ An offshore wind can blow the ice out. Later, you can end up with dangerously thin ice.
- ▶ Winds that come a long way over the ocean with no barriers will make large, dangerous waves.
- ▶ Winds that push moving ice toward land can trap you in the ice.
- ▶ Onshore winds can cause overflow.



Wind blowing across open water will make dangerous waves. (Photo: Kawerak Subsistence)

The weather, as soon as it starts blowing, we head back towards the beach. When the ice starts floating out there towards the beach, floating in, a lot of times we get blocked out there, can't go anywhere.—**Ralph J. Saccheus, Elim**

RAIN

- ▶ Rain in the spring and fall chills you quickly. Look out for rain clouds and most of the time you can avoid getting caught in it. Spring rain showers are scattered, short rain showers.

FOG

- ▶ To find your way in fog, memorize landmarks.

When you're in fog or zero visibility you can determine where you are by looking at the water current; whether there is upwelling, twirling or an eddy of water current, then you know you're in the north shore area of Gambell. When you're on the south beach there are no eddies or upwellings and the water current is always moving in one direction, so then you know you are on the south beach.—George Noongwook, Savoonga

Good fog

- ▶ If you see fog along the tundra in the spring and fall, that is a sign of good weather to come.

Bad fog

In fog that forms real quick, we have got to head home right away. Otherwise we're going to be stuck in a storm—wind, big waves. In a valley on Siberia side, if a cloud forms real quick on that valley, you'll have no time to go home. That storm is going to get you right there, right on the spot.—John Ahkvaluk, Diomede

WEATHER PREDICTION

“Most important, if you're going to be a good hunter you need to learn how to read the weather.”—Nicholas Lupsin, Saint Michael

When you want to check the weather, look out as far as your eyes can see and that will tell you the weather; do not just look a little ways.—Patrick Omiak, Diomedede

Ask around before you go out; see how the weather is going to be. We listen to the weather report. Sometimes it doesn't work right and sometimes it does. Sometimes it's the opposite. They always tell us, the weather itself is the boss. Nobody can control it. You have to watch for different signs in the sky.—Roger Nassuk Sr., Koyuk

CLOUDS

- ▶ Pay attention to changing clouds, the wind will pick up.
- ▶ Wavy clouds that resemble little ripples high in the sky are a sign that a storm is coming.

Kenuugneghqun:
Saint Lawrence
Island Yupik term for
straight, lenticular
clouds that indicate
strong winds.

- ▶ Wind clouds that are just forming are dark.
- ▶ Elongated gray clouds indicate that wind is coming. If you see them you should go home.
- ▶ Puffy clouds like little marshmallows mean there are calm winds higher up in the atmosphere.

I could see the real feathery clouds right above the mountains—we were out in the ocean, looking north. I told my crew it's going to get real windy here pretty soon, and of course later on that day it got real windy.—Frank Johnson II, Nome

CLOUD CAPS MEAN WIND IS COMING

- ▶ Cloud caps, which form on the top of high places like mountains, can predict that big winds and rough waves are coming. Hunters described looking to Diomedede Island, Fairway Rock, Cape Nome, Isaac's Point, Besboro Island, Cape Darby, and Sledge Island to look for cloud formations. If they see a wind cloud in any of those places, it is time to come home.

Besboro Island gets a cloud on top if it's going to become real windy. Those elders really knew about the weather through the sky or some



A cloud cap over Diomedede indicates that wind is coming.
(Photo: Kawerak Eskimo Heritage Program)

*things making signs. They knew when the sun got a ring around it that it's going to be windy. Or when you see a rainbow that means it won't rain too long. But it sure rained this summer, we saw a rainbow all right but it never stopped raining. Change too, I guess.—**Hannah Takak, Shaktoolik***

WIND AND WATER

*You can tell by the water where the wind is, where the water is darker. [When you see that,] you rush what you're doing and start heading home.—**Bivers Gologergen, Nome***

*Clouds on the horizon, if there are little waves even though it's calm, you know it's going to get windy later on.—**Morris Toolie Sr., Savoonga***

*Look down in the clear water at the bottom; if the bottom under there starts whirling and gets dirty, it is going to become windy.—**Kimberly Kavairlook, Koyuk***

MOUNTAINS

- ▶ When the mountains and hills look big, like a wall with steep sides, it is going to become windy.

It was a good, calm day. My co-hunter said, “Let’s go home, it’s going to get windy.” When he looked at the mountains, which were very dark blue, he knew the bad, strong winds were coming down. I didn’t want to head home but we did and as soon as we launched down there about half an hour later it blew rough.—Leonard L.

Raymond Sr., Stebbins

SUN AND MOON

- ▶ When the sun has a sundog, it is going to get stormy in a day or two.
- ▶ A ring around the moon means it is going to storm.



A sundog means a storm is coming. (Photo: Jack Gadamus)

ANIMAL SENSES

I’ve noticed that before it starts getting really windy, seals come close to the rocks or the shoreline and get real busy eating. Then when the wind comes, it gets rough and the seals can’t be around the rocks so they move out. Usually there’s no wind or signs that the wind will pick up but somehow the seals know what’s going on.—Nicholas Lupsin, Saint Michael

IF YOU ARE CAUGHT IN BAD WEATHER

An important factor towards saving lives is to lighten the boatload of animals taken when we get caught in circumstances—when the sudden onset of wind comes and we need to get to shore right away to get out of the wind and ice.—Savoonga Elders Focus Group

ICE SAFETY

Ice is one of the most dynamic elements of the environment and hunters must always be aware of its behavior and characteristics.

Hunters identified several dangerous situations involving ice. For example, when travelling over ice, hunters must watch out for thin ice, which is black and may glare, and seal holes.

Always use a walking stick, because areas of thin ice and open water can be hidden under the snow. It is also good to know where the ice breaks off due to currents and where rivers and springs coming into the ocean can cause open water or overflow.

Hunters have occasionally drifted away, and it is important to watch for an offshore wind as well as cracks in the shorefast ice.

Hunters must be alert when travelling among moving ice, because winds, tides, and currents can pile the ice up, trapping boats. Slushy ice can make landing a boat dangerous, and can also make travel difficult.

When butchering animals on moving ice, hunters have to watch that the ice pan does not flip over or split in half, and must track its speed, direction and other possible hazards. Staying safe requires knowledge of and attention to the ice environment. What follows below are examples of hunter advice for staying safe on or among the ice. Ask hunters in your community about local ice conditions and safety tips.



When boating among moving ice it is important to pay attention to the direction the ice is moving. Don't get caught when the ice piles up! (Photo: Kawerak Eskimo Heritage Program)

ALWAYS BRING A WALKING STICK

You need a walking stick, a pointed [piece of] metal or rod. When you're walking on young ice you have to test it and if it goes through, you have to go the other way. In some places, too, sometimes the water is covered with snow. You have to be cautious.—Patrick Omiak Sr., Diomede

We try to tell them to use a walking stick. There's a couple boys that stepped into seal holes and have had to be pulled out. If the snow is thick and deep and the hole is way down here, it's pretty hard to reach those guys that are in the water.—Sheldon Nagaruk, Elim



Beware of stepping into seal breathing holes.
(Photo: North Slope Borough)

KNOWING WHEN ICE IS SAFE FOR WALKING

Black ice is real thin—it's dangerous. If it's white, it's safe to walk on. If it starts to turn gray, it's marginal.—Sheldon Nagaruk, Elim



Always bring a walking stick. (Photo: Austin Ahmasuk)

Young ice glares when it's forming; you can't step on it.—Vincent Pikonganna, King Island

Follow your same track back, even if it looks quicker another way.—Roy Ashenfelter, Nome

If the ice is grounded, if there are large piles, that gives me a good indication of ice safety and stability. If there aren't any of these big ice piles you know the ice is really moving around.—Austin Ahmasuk, Nome

If a seal is on top of the ice, the ice is anywhere from two to four inches thick and it should be able to hold you up.—Paul Nagaruk, Elim

If you see water on top, if it's kind of bluish, it's still safe to go out. When black or darker spots appear you shouldn't even be on the ice.—Johnny Anasogak, Koyuk

FRESH WATER ICE

*Fresh water ice is dangerous. It's brittle compared to sea ice.
—Jimmy Carlisle, King Island*

HIDDEN DANGERS

After it snows, the next day you have to remember where the young ice was because it will stay white with the snow on it. Study, always watch the ice and where the ice blew out and then refroze. Then you'll be all right.—Nicholas Lupsin, Saint Michael

You've got this friction caused by the incoming ice. That causes flakes like a slush puppy. It looks like continuous ice but it's actually just slush from the level of the ice to the water. So young men have to be careful where they walk, otherwise once you fall into slush there is no way you will be able to get out. Every time you put your hand in, slush would cover it again.—Morris L. Nashoanak Sr., Stebbins

The ice looks good but you have to watch out. You can break through into the overflow.—Nicholas Lupsin, Saint Michael



The young ice in the foreground is unsafe for people to walk on, although it may support a seal. (Photo: Lily Gadamus)

KNOW PLACES WHERE THE ICE BREAKS OFF

[It's at] areas off the capes and off the deeper parts of the water that the ice breaks off. It might be there today, it might not be there tomorrow. Another area to watch out for is where the eddies form;

the ice is always breaking off there. During the night it will freeze and there will be a thin layer of ice. We actually had snowmachines go down right in front of town [at the eddy] because they thought it was frozen, good ice.—Paul Nagaruk, Elim

DANGERS IN THE ICE

The ice that forms like a needle, that's dangerous too. My young brother drowned out here on those things.—Kenneth L. Kotongan, Elim

Jumbled ice is a very dangerous ice condition to be traveling on. If



you fall in jumbled ice and have no assistance that is pretty much a death sentence. You can't get back up unless you have aid or you have some kind of aid on your own person.

—Austin Ahmasuk, Nome

There is always a crack from the current, the tide. It could be under the snow and it can be wide. Underneath that snow the ice is broken — you

Only climb on jumbled ice if it is frozen in a larger pan. (Photo: Lily Gadamus)

have to watch out. Use a walking stick and poke around.—Edward

Soolook, Diomede

PILING ICE

It can pile up like a tractor pushing dirt on a trail. That pile over here, it was thirty feet in the air. I was driving to the old village site and looked to my right and saw the ice pile up like that in just seconds.

—Edgar M. Jackson Sr., Shaktoolik

They say when you're caught [in piling ice], when the ice comes in you have to go on top of the ridge and ride it out. Step on one ice after the other when it's coming in; there is no place else to

run. Keep walking that way and it won't take you under.—Vincent Pikonganna, King Island

When you're on shore ice and the ice is coming in and it's thin ice, you can stay and let it pile up. Otherwise if the ice is too packed ... we don't go. We just wait for it to pass.—Ronald Ozenna, Jr., Diomede

RIVER MOUTHS AND SPRINGS

[Along] the shore-fast ice all these tiny creeks are really dangerous to be traveling on because they're usually overflowed and they heave and hollow and there will be a large glacier. It can be hazardous to either fall through or you can lose a machine, get stuck, get cold. Towards breakup the large rivers will cast debris onto the shore-fast ice and they abrade or melt the shore-fast ice in those areas.

—Austin Ahmasuk, Nome

Right along this beach here you have to watch out for springs, especially in the wintertime. Most of them don't freeze;



Landing a boat on shorefast ice near Sledge Island. Shorefast ice is a safe place to land a boat and can be used to escape from dangerous conditions such as waves. Be wary of springs and river mouths. (Photos: Top: Roy Ashenfelter; bottom: Lily Gadamus)

the ice is real thin. When it's dark out you don't really know where all the springs are. Wintertime you can see the mist where the spring is, or there is young, clear ice on top.—**Nicholas Lupsin, Saint Michael**

DRIFTING AWAY

An old man told me once in King Island, a long time ago, they were sleeping and heard somebody hollering from way down there on the ice. It was Wales people, a whole bunch of men that had floated away. They ended up on King Island and they took them all in.

—**John I. Pullock, King Island**

- ▶ To avoid drifting away, hunters can watch out for offshore winds, avoid walking on moving ice, recognize areas where ice tends to be unstable, and avoid crossing large cracks on the shore-fast ice.
- ▶ When you're on the ice, pick a landmark on shore and keep an eye on it. If it shifts you are no longer stationary. Gather your gear and head home.



Pay attention to cracks in the shorefast ice. Don't park your snowmachine on the ocean side of a large crack. (Photo: Lily Gadamus)

- ▶ When on the ice, you can tell if there is rough weather further out by looking at the cracks in the ice and seeing if there is water coming in through the cracks.

You have to watch when you go out on the ice; you have to watch for the lead, the crack on the ice. You can't park anything on the outside ocean side of that crack.—**Merlin Henry, Koyuk**

Watch out for cracks. When you see a crack you look and see how far it goes. If you're on the other side [ocean side] of it and the wind changes, it will go out and you'll be on the ice floe.—Allen M.

Atchak Sr., Stebbins

If we get a northwest or west wind a lot of time it blows the ice out. It will actually break off and blow out. I was on the ice checking a crab pot and I got blown out. Let somebody know you're out there and always check your ice conditions and wind conditions.—Paul Nagaruk, Elim

It's dangerous; you have to learn the ice conditions, know where it will break off I would stay on where the main ice is. Stay on the [shore]-fast ice, even if there's no wind—it all deals with the tide and current. It will give you no warning, just come right off.—Edward Soolook, Diomede

When hunting on moving ice, on young ice they watch for the cracks. If the cracks are going straight south, southwest, that means the current is good and it's good to go out. When you're walking out there, hunting, and you see a crack, you always step over the crack towards Big Diomede, always.—Arthur Ahkinga, Diomede

SLUSH ICE

- ▶ When caught in thin ice while boating, follow the current. This is easier than going against the current and also keeps the boat from capsizing.

An ice condition danger is the wall of ice formed along the shore or shorefast ice,

Aminakuq: Saint Lawrence Yupik term for ice which forms in long cracks in older, more solid ice. It can sometimes be dangerous to walk on.

Sigugneghtuqami: Saint Lawrence Island Yupik term for places where lots of slush ice is piling along the shore. When in a sigugneghtuqami area, you should not shoot an animal because it is very dangerous to try to retrieve it in such conditions.

Sallek: Saint Lawrence Island Yupik term for thin ice that usually forms during the fall and early winter.

Tamliivilggaghqun:

Saint Lawrence Island Yupik term for somewhere you can land your boat easily. This is especially important in the spring and fall due to sigugneq (Saint Lawrence Island Yupik term for slush ice piled by waves along the shore).

*when the current pushes a big cake of ice towards the shore. Those are not safe. It could collapse. There's nowhere to dock the boat. It is very slippery and a very dangerous situation. Always look around for another boat.—**Savoonga Elders Focus Group***

*A long time ago it was very important to stay close to the shore in the fall time because if you were to get drifted out into the area where the slush ice is being pushed and piled against one another, that slushy ice out there is impossible to paddle or oar in. You can't move, so you're stuck and at the mercy of the wind.—**Austin Ahmasuk, Nome***

BOATING AMONG MOVING ICE

- ▶ Boating among ice pans can be safer than travelling in open water because the water is calmer. The danger is that the ice can close in, trapping or crushing boats. The worst situation is to get caught between moving ice and a barrier such as land, shore-fast ice, or an island. Hunters need to be aware of where they are and what the ice, wind, currents, and tide are doing.



Boat along the ice edge, where swells are not as bad as in open water. (Photo: Lily Gadamus)

*I was taught to hug the ice and stay with the ice for safety. The water (swells) are not as bad as the open water, so just follow the ice back and it will you get close to the land.—**Bivers Gologergen, Nome***

We were taught to watch out for the ice when it's coming back in. When it comes in, you can't move your boat, there's no water and you have

to put your boat on the solid ice and wait for the ocean to, as they say, relax. When this happens it's very dangerous because the ice can come in and go on top of the ice and destroy your boat. I've seen that once and it's quite scary.—**Vincent Pikonganna, King Island**

Ice that's most dangerous is when it's moving fast. You need to get out of its way. That's when the current is changing and high tide is at its peak. Be real careful. Make sure you have a lead or open waters to go to.—**Roy**

Ashenfelter, Nome

The ice moves in and out—you have got to pay attention to where you're going in the ice. What the current will do with the ice, a lot of it depends on the weather and the wind.—**Stan Piscoya, Nome**



You can pull your boat up on the ice if the ice is closing in. Make sure the ice is safe. (Photo: Brandon Ahmasuk)

When the tide is coming in, that ice doesn't stop for nothing. I was trained not to be out there when the tide is coming in.—**Merlin Henry, Koyuk**

If there's ice already formed around Egg Island, which is connected to shore ice, the incoming tide brings tons and tons of ice. You get caught between Egg Island and that ton of ice, there is no way you can get out. You may have to spend the night out there.—**Morris L. Nashoanak Sr., Stebbins**

Watch for the current and how much packed the ice is. It's called chagneitaaq. It means the ice is getting too packed and that you need to get away from it and go home or go to the Island to spend the night.—**Albert A. Washington, Saint Michael**

*With our small boats, we can pop our boats onto the ice anytime. You just have to wait. If you try to force it, you will run into problems. One of the hunters had been looking for open water. He went from Sledge [Island] to King Island and burnt all his gas trying to find his way (out of the ice.) It's better to wait and save your gas and know that you'll be able to leave [when the ice relaxes].—**Frank Johnson II, Nome***

BUTCHERING

*When you're approaching walrus, look at the condition of the ice they are on. The walrus is a lot heavier than us but the ice could easily flop over. I tell my crew not to shoot walrus that are on flimsy ice.—**Bivers Gologergen, Nome***



Before shooting a walrus or ugruk, make sure the ice is safe for butchering. (Photo: Kawerak Eskimo Heritage Program)

The ice is always moving out there. It's a good thing we were on the other side of the ice—it broke in half. We were

*lucky we were butchering walrus on a solid piece of ice; otherwise we would have a big problem.—**Joseph Kunnuk, King Island***

- ▶ The current can catch the underwater part of an ice pan and flip it while hunters are butchering.

OCEAN SAFETY

The surface of the water looks different through the eyes of a hunter. Through experience on the water, hunters have learned the power of the currents, what the tides can do to ice, and where dangerous eddies are.

If caught in high winds, hunters avoid shallow areas, which have bigger waves. They also know how to plan the safest travel routes and where they can take shelter if the conditions turn bad. They know where the strongest currents and biggest waves are found, and they pay attention to the tides.

Hunter knowledge of water and currents will be different for every community. This section shares some examples from hunters and elders, but it is best to talk to people in your own community to learn about local conditions.

WATER

Know when and where to expect big waves

- ▶ From May to August the waves are not always that dangerous, even if it's windy. Fall time is not a good time to be traveling far because the weather can change unexpectedly and the swells get big and dangerous. In September, the waves start to get bigger, and by October boating is more difficult.

Areas that tend to get big, dangerous waves are Cape Rodney, Cape Douglas, and around Hastings. It could be because of the shallow water. As well as the other side of King Island. We went around the Island once and the crew got scared. An old man said, "No, don't get scared, those waves don't break, just ride them. We used to ride qayaqs around them." The real big waves don't break, after the

north wind. During low tide the big waves carry that water out, the seawater. I think that is contributed [to] by the low tide.—John I. Pullock, King Island

- ▶ There are often big waves on the east side of Little Diomedea Island.

Know where to take shelter and plan safe travel routes

- ▶ The north side of Sledge Island has a natural harbor. It may be rough on the west side but it will be calmer on the south or north side.



Sheltered area near Topkok. Know where to find shelter in case the water gets rough. (Photo: Lily Gadamus)

I've always taught to hug the coast as far as you could

and then go out. It's more distance to travel but it's safer. You also burn less gas because there is less current.—Bivers Gologergen, Nome

CURRENT

- ▶ Hunters boating in the ocean need to know where the strong currents are located in order to avoid them or to be prepared. Capes and straits tend to have stronger currents. Hunters butchering on ice need to be aware of the speed and direction of currents because they can carry them far away.

The two currents between Diomedede and Wales and Diomedede and Russia are the strongest. You have to know about them. They shift back and forth. They have big rollers in them. You don't want to get caught in one of those.—**Edward Soolook, Diomedede**



Be aware that capes and points often have strong currents. (Photo: Jack Gadamus)

There is an eddy on the north side (of Diomedede); you could hear the ice grinding. Those old people said there is no way a person could escape from there.—**Patrick Omiak Sr., Diomedede**

If anybody breaks down up north of Little Diomedede, they're gone. That's why no one likes to go way up north; the current is too strong.—**Ronald Ozenna Jr., Diomedede**

Rocky Point has a really strong current going back and forth (with the tide). You get whirlpools around the Stebbins cape. That's a really strong current, super strong. Sometimes my boat would go sideways and come back. Water comes in and pushes out between Stuart Island and Stebbins.—**Nicholas Lupsin, Saint Michael**

Cape Darby has a strong current. They get crab over there so I go around the current. It's pretty rough in that current.—**Edgar M. Jackson Sr., Shaktoolik**



When butchering on the ice, keep an eye on currents and weather conditions. (Photo: Lily Gadamus)

CHANGING CURRENTS

I've always tried to teach them to go against the current when you're heading back ... if you try to go from point A to point B, and then you shoot it with GPS, that current is also taking you ten, fifteen degrees off your coordinates. What I was taught out there is to add ten, fifteen degrees to your (path) back home and (go) against the current. And make sure you have plenty of gas.—Bivers Gologergen, Nome

- ▶ When the tide comes up the currents switch directions; you have to watch out for them while hunting because ice can break off.
- ▶ The current in the pass between Stebbins and Stuart Island is strong when the tide is coming in.

EPILOGUE

Thank you to the hunters and elders who contributed their wisdom for the making of this book. Without the cooperation and support of our project participants, this book would not be possible. Because each person took the time to sit down and speak, priceless knowledge has been recorded, only a portion of which is included here.

Project participants have let it be known that the young people who are willing to learn should never be hesitant to ask elders or experienced hunters for advice. They are there for us and want to pass on our traditions of safety.



Teach the kids early! That way they can provide for themselves when they are older. (Photo: Brandon Ahmasuk)



Butchering a bearded seal on the ice. (Photo: Lily Gadamus)

FRONT COVER PHOTO CREDIT: Austin Ahmasuk (see page 28)

BACK COVER PHOTO CREDITS, FROM TOP: Brandon Ahmasuk (see page 35); Lily Gadamus (see page 5); Austin Ahmasuk (see page 19); Kawerak Subsistence (see page 15); Brandon Ahmasuk (see page 7)



SEAL & WALRUS HUNTING SAFETY

What gear should you pack before heading out seal or walrus hunting? How can you predict dangerous weather? What kind of ice is safe to walk on?

You'll find the answers to these questions—and much more information about hunting safety from elders and hunters of the Bering Strait region—inside this book!

We heard amazing stories about traveling on the ocean in moving sea ice, and participants explained how hunters can prevent accidents using traditional knowledge as well as modern technology. ...This book contains hunter and elder knowledge about preparation before going out, gun safety, animal behavior, weather, ice safety, and ocean safety. Hunting strategies include exercising caution around marine mammals, observing weather to know when to head home, staying safe in moving ice, and survival techniques to use if you become stranded.—from the Introduction

You have to pay close attention to your surroundings every minute that you're hunting. You never know what's going to come up; you never know what's around the bend.

—Vincent Pikonganna, King Island



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