Kachemak Bay

supplement

to the

ALASKA

BOATER'S HANDBOOK

April 2021

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

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Dear Fellow Alaskan,

Kachemak Bay is a paradise for outdoor enthusiasts. It boasts opportunities for boating, camping, hiking, skiing, beachcombing, wildlife watching, berry picking, and more. Insiders know there are few spots with better fishing for halibut and salmon. On the water, choices for paddlers and powerboaters range from serene coastal lagoons to the 125-mile Kachemak Bay Water Trail. A rich marine environment and stunning views combine to create breathtaking natural beauty rarely equaled anywhere.

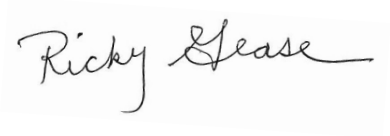
For all its beautiful scenery, the bay can be a treacherous place for the inexperienced or unprepared boater. Five out of six of Alaska's boating fatalities are the result of capsizing, swamping, ejection, or falling overboard. Most of the fatalities involve middle-aged men, in a vessel less than 26 feet, many of whom were not wearing a life jacket. When lack of preparedness combines with Kachemak Bay's frigid water and remote settings, those risk factors significantly reduce the odds of surviving a boating accident.

So, to ensure that Kachemak Bay adventures end safely, the Alaska Office of Boating Safety offers this revised Kachemak Bay Supplement to the Alaska Boater's Handbook. It provides up-to-date local information to make boating experiences more fun and less trouble. This supplement is especially useful to newcomers, and even experienced boaters will find it helpful.

In addition to the handbook, the Alaska Office of Boating Safety provides other resources for boaters. To learn more, call (907) 269-8704 or visit **www.alaskaboatingsafety.org**. You can also follow the Alaska Boating Safety Program on Facebook to receive information about the latest activities and programs.

Good times and great adventures await the well-prepared boater. But remember to boat with caution. Always wear your life jacket, file a float plan, and avoid drinking and boating.

Sincerely,



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KACHEMAK BAY SUPPLEMENT

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Table of Contents

OVERVIEW

Kachemak Bay extends northeasterly some 36 miles from Lower Cook Inlet into the heart of the Kenai Peninsula. Encompassing 354 square miles, the bay has 320 miles of shoreline and an average depth of 25 fathoms (150 ft.). In some places the bay reaches depths of 96 fathoms (576 ft.).

The bay's stunning scenery encompasses coastal forests, saltwater marshes, wetlands, mountains, glaciers, alpine tundra, lakes, rivers, and streams. This biodiversity ranks the bay among the richest marine environments in the world. Kachemak Bay supports more than 231 species of birds, including 90 percent of Cook Inlet's wintering sea birds, 450 species of marine invertebrates, and 100 species of fish, including five species of Pacific salmon.

Halibut swarm the waters of the bay and Cook Inlet in numbers that give Homer its reputation as "halibut capital of the world." More than 190,000 shorebirds move through the area during the annual spring migration. Bald eagles and other raptors, Steller's sea lions, harbor seals, harbor porpoises, and sea otters are commonly observed. Humpback, minke, killer (Orca), and beluga whales and Dall's porpoises are observed occasionally. Mountain goats and black bears are sometimes seen on mountain slopes. Many other terrestrial mammals including brown bear, moose, wolverine, coyote, wolf, river otter, and lynx live in the surrounding uplands.

Native Alaskans were drawn to the bay's abundant fish and wildlife and relatively mild climate as long as 5,000 years ago. Homesteaders, coal miners, and herring fishermen moved into the area during the 1800s and 1900s. Since the early 1900s, commercial fishing has been a mainstay of the local economy, later joined by commercial mariculture, marine transportation, scientific research, government, tourism, and sport fishing. The bay and the lower inlet are popular saltwater recreational boating and fishing playgrounds for southcentral Alaska residents, and popular destinations for visitors.

Repeatedly recognized for its superlatives, Kachemak Bay is a Western Hemisphere Shorebird Network Site, a National Estuarine Research Reserve, and a State Critical Habitat Area. Kachemak Bay State Park is Alaska's first legislatively designated State Park and Kachemak Bay State Wilderness Park is Alaska's first and only State Wilderness Park. Collectively, they encompass roughly 400,000 acres of land and water stretching across the Kenai Mountains from Kachemak Bay to the Gulf of Alaska.

Thousands of boaters enjoy the bay each year via Homer, Seldovia, and other bay communities. Much of the bay is accessible to boaters, but it can be dangerous, and even deadly, for the unknowing or unprepared. Read on for information that will help you have a safe and enjoyable boating experience on Kachemak Bay.

HOMER

This picturesque seaside community of 5,000 is the gateway to Kachemak Bay. Homer hosts an array of amenities for boaters. Following are some highlights:

HOMER AREA BOAT LAUNCH SITES

Most recreational boats can be launched at the Homer small boat harbor. Kayaks, canoes, and other hand-portable craft may be launched at several locations along the Homer coastline, including Bishop's Beach, Mud Bay, the Fishing Hole, the sand beach between the ferry terminal and

OVERVIEW

Land's End Resort, the boat harbor, and at several points along the west side of the Homer Spit. A Travelift at the Northern Enterprises boatyard on Kachemak Drive can launch vessels too large for trailer launching (up to 200 tons).

Note: East End Road winds 20 miles east from Homer along the bluffs above the north shore of the bay to the villages of Voznesenka, Razdolna, and Kachemak Selo, but does not provide vehicular access to the bay.

HOMER SMALL BOAT HARBOR

The small boat harbor, near the end of the Homer Spit, is the central fixture of the Port of Homer. It features 875 reserved stalls, more than 6,000 feet of transient mooring, boat maintenance grids, a commercial fish dock, and a multi-lane boat launch ramp.

The launch ramp is open year-round. Launch fees apply from April 1-October 15. Launch passes are available at the entrance booth or the adjacent self-pay station. Season passes are available at the booth or the harbormaster's office. *Note: Launch fee payment is enforced whether or not the booth is staffed.* Several ramps and two floating docks can be used at all tides. A limited amount of vehicle and trailer parking is available in lots adjacent to the ramp, but obey all posted signs. Users should prepare their boats before arriving at the ramp to expedite the launching process, and then move their vehicles and trailers away from the ramps as quickly as possible to prevent congestion.

Reserved moorage is available, with stalls leased on an annual basis. There is a waiting list for all stall sizes. Transient mooring is also available along the yellow painted bull rails in the harbor. Transient moorage can be purchased by day, month, six months, or year increments. All moorage fees are based on vessel length.

Laws against littering and pollution

are strictly enforced. Cleaning fish in the harbor is forbidden other than at designated fish cleaning stations. Receptacles for trash, used motor oil, and fish waste are available. A sewage pump-out barge is also available in the harbor.

The harbormaster has a limited amount of spill containment equipment and materials, and charges for these services. The harbormaster's office can answer requests for the local time, tides, NOAA weather forecast, and local weather observations.

It is not uncommon to see seals and sea lions in the harbor; however, feeding or harassing sea lions or other wildlife is prohibited.

For more information on launching, moorage, the location and use of harbor facilities, refuse disposal sites, and weather updates, contact the harbormaster's office at 907-235-3160, VHF Ch. 16, or www.cityofhomer-ak.gov/port.

FUEL AND SUPPLIES

Gasoline, diesel, and lubricants are available at gas stations in town and at the two fuel docks at the south end of the small boat harbor, near the harbor entrance. Fishing tackle, bait, ice, groceries, fishing licenses, and general supplies are available at stores in town and on the spit. Marine supplies and services are offered at several locations around Homer (see the Boat Owner's Guide to Homer, published by the Homer Chamber of Commerce). For an index on marine-related businesses in Homer, see www.homermarinetrades.com.

OVERVIEW

CAMPING

Camping is permitted at three municipal campgrounds on the spit: Mariner Park, located near the base of the spit on the southwest side called, The Fishing Hole Campground, located near the Nick Dudiak Fishing Hole, and Tent Areas 1 and 2, located across the road from the small boat harbor. Amenities include potable water, RV dump station, restrooms, dumpsters, and fish cleaning tables. Separate fees are charged for RVs and tents. Each unit requires a permit. Pay stations are located at several sites and attendants also collect. Credit cards are accepted. Maximum stay is 14 days. An additional municipal campground, Hornaday Park, is in town at 629 Fairview Avenue. For more information, call 907-235-1583 (seasonal number).

The privately owned Heritage RV Park is near the Fishing Hole and offers full RV hookup services. Information is available at 907-226-4500. Another commercial facility, the Homer Spit Campground, can be reached at 907-235-8206.

For more camping information, check with the Homer Chamber of Commerce at 907-235-7740 or www.homeralaska.org/.

BOAT STORAGE

Many boaters prefer to store their boats in the Homer area to avoid long tows up and down the highway. The Port of Homer offers non-secure parking in some areas around the boat harbor for up to seven days. Commercial storage is available at several locations around Homer: on the Homer Spit, Homer Spit Properties (907-226-3180) and on Kachemak Drive, the Homer Boat Yard (907-235-7158) and Northern Enterprises (907-235-8234). Some marine businesses also have capacity to store smaller numbers of boats. For questions concerning maintenance or storage of vessels in Homer, check out the Homer Marine Trades website at www.homermarinetrades.com/.

THE NICK DUDIAK FISHING HOLE

This small, artificial basin adjacent to the small boat harbor is stocked annually by the Alaska Department of Fish and Game with juvenile silver (coho) and king (chinook) salmon. The hatchery-bred smolt leave the basin to forage in the open North Pacific, returning one to three years later as full-grown adults. Chinook start arriving in May.

Credit: City of Homer *The Nick Dudiak Fishing Hole*

Silvers begin to arrive in mid-July and continue to be present around the spit and inside the basin until September. Salmon bound for the Fishing Hole can be caught by boat anglers from Mud Bay out to the green buoy marker at Archimandritof Shoals, a mile west from the tip of the Spit.

Following are brief descriptions of other communities on or near Kachemak Bay and Kachemak Bay State Park:

HALIBUT COVE

The community of Halibut Cove, between Ismailof Island and the mainland, is a scenic and interesting place to visit by boat. Most of the land in Halibut Cove is privately owned. A public dock is located near the east end of Ismailof Island, but boaters should be aware that most of the upland adjacent to the dock is private. The entrances to the cove are shallow, and the southeast entrance is too shallow for boats during low tide.

SELDOVIA

Seldovia has a small boat harbor, restaurants, lodging, guide services, an airport, a medical clinic, a historic Russian Orthodox church, a small museum, roads and trails, and other attractions and amenities.

See the harbormaster's office, just west of the head of the ramp, about moorage. The western side of Seldovia entrance is marked with buoys.

NANWALEK

Nanwalek, formerly English Bay, is a small village on a promontory at the south side of the entrance to Port Graham. It includes a spit with a sandy beach, which nearly encloses a small lagoon and is accessible by boat only on tides 14 feet or greater. The approach by water has many rocks and the area experiences strong surges from the sea when the wind is from the west. There are no channel markers, so follow the chart carefully. Nanwalek offers no fuel or visitor services. Small boats can parallel the rocky shore into the bay and on to the village of Port Graham.

PORT GRAHAM

The community of Port Graham is about three miles into Port Graham (the bay) on the south shore. The entrance to Port Graham is rocky. The approach from Dangerous Cape is identified with channel markers. Day markers are located on the north side of the mid-channel island. A floating dock lies next to a hatchery and fish processing site. Watch out for floating fish net pens. Gas and diesel are available from a dealer on the upland near the floating dock, but fuel has to be carried in jugs to the float. At high tide, fuel drums can be rolled down the beach and the other (northeast) side of the village site. The village has a couple of small shops with groceries, fishing tackle, and a minimal selection of other supplies and services. The Port Graham area is scenic and offers several attractive beach camping sites; check with the Port Graham Native Corporation for permits. The head of the bay shallows well out. A small bay on the northeast side of the entrance has a gravel beach and distinctive white streaked cliffs.

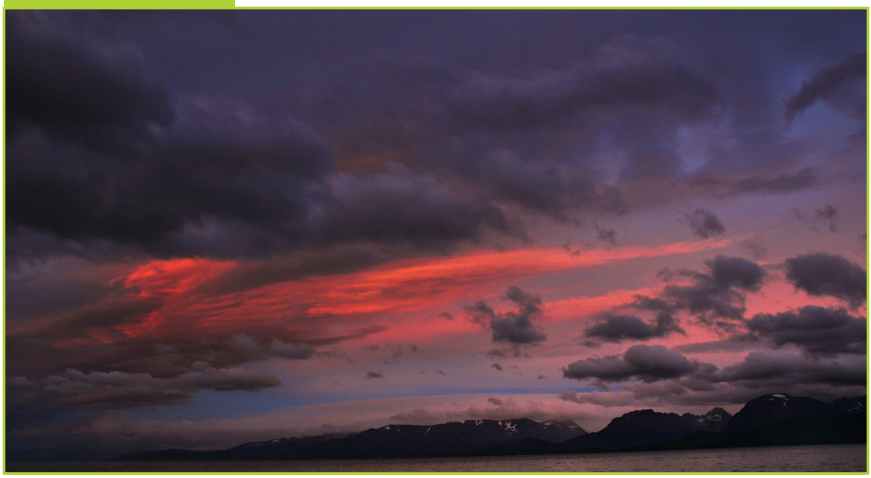
ANCHOR POINT

Anchor Point, situated at the westernmost highway point on the continental road system, is 200 miles south of Anchorage and 12 miles north of Homer. Many boaters access lower Cook Inlet via a beach access road that runs west from town along the Anchor River. Some put in from the beach at the end of the road; others continue north along the beach to the mouth of the Anchor River and launch at high tide.

Launching a boat at either of these locations can be tricky and is not recommended for those unfamiliar with the area. The beach is soft silt and sand, and has a shallow water table. Many vehicles have become stuck and some even lost to the incoming tide. Use extreme caution.

A boat tractor launch service operates seasonally at the west end of the beach access road. It is a popular choice, but boat trailers must be equipped with side rails to use this service. Before arrival at the tractor launch, boats should already be loaded and prepared for launching. Make sure engines start and run well with systems operational, and have plenty of fuel, food, and water. Once at the launch site, remove tie downs, install drain plugs, and disengage the engine travel bracket(s). Ask for and follow directions from the launch service staff. The launch service recommends boaters carry cellphones. For more information about Anchor Point, visit the Chamber of Commerce web site at www.anchorpointchamber.org/.

OVERVIEW



KACHEMAK BAY STATE PARK

Kachemak Bay State Park and Kachemak Bay State Wilderness Park were created to protect and preserve their scenic values for the use and enjoyment of the public. The lands and waters within the boundaries of Kachemak Bay State Park and Kachemak Bay State Wilderness Park are regulated by Alaska State Parks, which manages Tutka Bay, Sadie Cove, Halibut Cove Lagoon, and the waters off Glacier Spit to Aurora Lagoon. Park regulations can be found on the Alaska State Parks website.

Kachemak Bay State Park and Kachemak Bay State Wilderness Park collectively contain some 400,000 roadless acres of spectacular mountains, forests, glaciers, lakes, rivers, and coastline. Much of the area extending from Bear Cove to Tutka Bay and south to the Gulf of Alaska coast is within the park, although there are numerous private inholdings. The park can be accessed by boat or airplane. Air charters, boat rentals, and water taxies are available in Homer for those without private transportation. Information on water taxi service is available online.

The park offers a range of outdoor recreational opportunities, including six public-use cabins. Three are located in Halibut Cove Lagoon (where there is also a public dock), one at China Poot Lake, one in Moose Valley, and one on the south side of Tutka Bay. Access to Halibut Cove Lagoon is tidally restrictive, and it is strongly encouraged

to acquire local knowledge of the channel and required tide levels appropriate for your vessel prior to attempting boating into the lagoon. The cabins are very popular and must be reserved well in advance. Contact State Park offices or visit www.dnr.alaska.gov/parks/aspcabins/ for more information. Nomad Shelters, Inc. rents yurts at several locations in the park. Check with the company in Homer for more information, or at www.nomadshelter.com.

Camping is allowed anywhere on park land. Designated campsites are located on Chugachik Island, Mallard Bay, Humpy Creek, Glacier Spit, Right Beach, Halibut Cove Lagoon, China Poot Bay, China Poot Lake, Emerald Lake, North Eldred and South Eldred Passage (east side of Eldred Passage), the entrance to Sadie Cove, and Kayak Beach (at the north entrance to Tutka Bay). There are three more campsites inside Tutka Bay, plus one at Tutka Bay Lagoon. Campsites are minimally developed and users should keep them clean and ready for the next visitors. Campfires are only allowed below timberline, on beaches or gravel bars with no vegetation, or in the metal fire rings provided.

Designated hiking trails lead to lakes, mountain peaks, glaciers, and other natural attractions. Trailheads along the shore are marked with orange triangles with a black “T.” Please review trail reports before hiking.

Other attractions in the park include a pink salmon run at Humpy Creek, a sockeye salmon run at China Poot Creek, and hard-shell clam beds at numerous locations. Check current regulations on clamming rules and closures.

Halibut Cove Public Use Cabin

The park office is in Homer, and a seasonally staffed ranger station is located in Halibut Cove Lagoon. Check with park staff at 907-235-7024 or go to the Alaska State Parks website for more information.

PREPARATION

Along with knowledge and skillful boat handling, thorough preparation is what distinguishes the best skippers and paddlers from other boaters. This is especially true when boating Alaska's coastal areas. Boaters must be as self-sufficient as possible. Adequate preparation may help resolve or prevent many common boating problems, and boaters will be better prepared to assist others in trouble. The first step is education.

BOATING COURSES & OTHER INSTRUCTION

Those new to powerboating should look for boating courses approved by the National Association of State Boating Law Administrators (NASBLA). Experienced boaters should consider taking a boating course occasionally as a refresher, because boating laws and technologies change, and current courses contain updated information. All boaters should understand state and federal boating laws and the International Navigation Rules, know first aid and CPR, and how to signal for help using a variety of methods.

In addition, Kachemak Bay and lower Cook Inlet boaters should be proficient in basic navigation. Even near shore, boaters can suddenly be caught in fog or quickly deteriorating weather. Boaters should know how to use a compass, read a tide table, and be able to determine their position on a chart. Consider taking basic coastal navigation courses, such as those offered by the U.S. Coast Guard Auxiliary.

Coastal paddling requires specific knowledge and skill and should not be undertaken until you have had both adequate instruction and practice. Both dryland and in-water instruction (in protected areas) are highly recommended. A capsized boat is a serious situation for coastal kayakers. Besides learning efficient paddling techniques, obtain and maintain essential skills in re-boarding a capsized boat in open water and in assisting in rescues. Then, practice in protected areas to build skill and

confidence before heading out into the open water.

PRE-DEPARTURE CHECKS

A pre-departure checklist should incorporate all federal and state requirements, as well as any additional equipment and procedures specific to your type of boat, the way it is used, and the current conditions. Keep in mind, while some items need only be checked at the start of each season or periodically, others should be checked before each trip. If transporting your boat to the bay via the road system, the best time to do a pre-departure check is before leaving home. Boat and equipment problems are better discovered in the driveway than at the launch ramp.

ALL COASTAL BOATERS

All boaters must comply with both state and federal laws. The Alaska Requirements Summary on page 16 summarizes state requirements. The following items are also highly recommended:

- Marine VHF-FM radio—besides use in case of trouble, a marine VHF radio can be used day-to-day to update float plans, communicate with other boaters, or to check on the weather
- Emergency communications and signaling devices
- Compass
- Nautical chart #16645 (Gore Point to Anchor Point)
- Tide tables (turn to the section labeled “Seldovia” for tables most accurate for Kachemak Bay)
- Manual bailing devices (even if you have an electric pump)
- First aid kit
- Personal survival kits
- Sleeping bags, small tent or tarp, and spare food (in case of an unexpected overnight stay)
- Full rain gear
- Change of clothes in a waterproof bag
- Insect repellent and head net
- AM/FM radio for weather forecasts (if no marine VHF radio)
- Hat, sunglasses, and sunscreen
- Food and water
- Nonslip footwear such as sneakers or rubber boots

ALASKA REQUIREMENTS SUMMARY

Requirements	Boats under 16 feet	Boats 16 feet to less than 26 feet	Boats 26 feet to less than 40 feet	Boats 40 feet to less than 65 feet
Life Jackets	One U.S. Coast Guard approved life jacket for each person on board. Must be in serviceable condition, approved for the activity, and worn in accordance with the label and owner's manual. Persons under 13 must wear a life jacket when in an open boat, on the deck of a boat, or when being towed (i.e. tubing, waterskiing).			
Throwable Devices	Recommended but not mandatory.	Except for canoes and kayaks, one U.S. Coast Guard approved throwable device (i.e. seat cushion or throw ring).		
Sound Producing Devices	Boats less than 39.4 feet (12 meters) in length must be able to make an efficient sound signal (such as that made with a whistle or horn) to signal intentions and to signal position in periods of reduced visibility.			Boats 39.4 feet (12 meters) or more in length, a whistle or horn.
Visual Distress Signals	Night signals meeting federal requirements (33 CFR 175.110) between sunset and sunrise.	Signals meeting federal requirements (33 CFR 175.110) for both day and night-time use. Exception: boats and open sailboats not equipped with mechanical propulsion and under 26 feet in length are not required to carry day signals. *Note: Pyrotechnic devices, if used to meet this requirement, must be current, serviceable and readily accessible. At the minimum, a total of three day/night combination devices or three day and three night devices must be carried.*		
Fire Extinguishers	At least one U.S. Coast Guard approved B-I required for boats with inboard engines, living spaces, permanent fuel tanks or enclosed storage areas or hull voids not sealed or filled with flotation material.		At least two B-I or one B-II U.S. Coast Guard approved fire extinguishers.	At least three B-I or one B-I and one B-II U.S. Coast Guard approved fire extinguishers.
Navigation Lights	Display required between sunset and sunrise and when visibility is restricted. International configuration required (varies with length and mode of operation). See the International Navigation Rules.			
Backfire Flame Arrestors	One U.S. Coast Guard approved backfire control device on each carburetor of all inboard gasoline engines.			
Ventilation	Boats with permanently installed engines, closed compartments, or permanent fuel tanks must have efficient natural or mechanical ventilation.			
Registration	A boat placed on state waters that is equipped with mechanical propulsion (gas, diesel, or steam engines, and electric motors) and any vessel used in sport fishing charter activities must be registered and numbered with the Division of Motor Vehicles (AS 05.25.53). Certificate of Number must be carried onboard. Registration numbers and validation decals must be properly displayed on hull of boat.			

AlaskaBoatingSafety.org

Check the local weather and tides before leaving home and again immediately before departure. File a float plan and stick to it. Brief all passengers on the trip plan (including the possibility of a late return) and the location of and how to use all equipment. Make sure everyone has proper clothing.

POWERBOATS

Shallow draft, low-sided, flat-bottom boats are intended for inland lakes and rivers, not for open coastal waters. They may perform poorly in rough water conditions and have little freeboard.

Mechanical breakdown is the most common powerboating problem. Practicing preventive maintenance per owner's manuals may help in preventing an unpleasant and potentially dangerous situation on the water.

In addition to the recommended items for all coastal boaters, every powerboat on coastal waters should have on board:

- Two anchors – each with chain and anchor lines, with one anchor and line attached to the boat
- Tools and spare parts including spark plugs, spare propeller, and a prop nut kit
- Fuel – enough for your trip plus a healthy reserve in case of

deteriorating conditions, disorientation, or if you need to loan fuel to or tow another boater; think 1/3 out, 1/3 back, and 1/3 spare
- A water/fuel separator filter, installed between the fuel tank(s) and the engine, is highly recommended when boating the coastal areas of Alaska.
- Depth finder

Powerboaters should also consider carrying electronic navigation equipment. A GPS receiver indicates current position and if properly programmed shows the way to important features. However, it is most valuable when used in conjunction with a nautical chart or an electronic chart plotter. Radar is invaluable on the bay, especially in cases of fog or limited visibility.

PADDLERS

Coastal paddlers should be knowledgeable of the effects of cold water immersion and be in good physical condition. Choose boats designed for rough coastal waters. Sea kayaks, with their very low center of gravity, covered decks, and typically high stability, are ideal. Canoes are not recommended unless they are completely decked and have

flotation bags installed to displace water, and the paddler has extensive knowledge and experience in canoeing rough, open water. In addition to legal requirements and the other items recommended for all boaters, coastal paddlers should also carry:

- Paddle float
- Stirrup
- Towing strap
- Plenty of visual distress signals
- Spare paddle

Alaska paddlers should choose clothes in consideration of both the air and water temperatures. Summer temperatures in coastal areas of Alaska average 40-70 degrees Fahrenheit. Wear clothing in layers and choose synthetic fabrics such as fleece, polypropylene, and nylon. Cotton clothing is inappropriate for coastal kayaking. Wear wetsuits, drysuits, or paddling jackets as an outer layer when appropriate. All persons should be dressed for a capsize, which includes wearing a life jacket. Life jackets should be fit tested and put on before departure.

Proper trip planning is essential. Boats should be selected for each person based on their experience and ability. Local waterway and weather conditions and potential hazards should be researched, especially tidal currents, surf, fog, and wind. Select trip routes suited for the least experienced/skilled participant. Double check all group gear. The weather forecast should be checked, then rechecked just before departure. All persons should know the route, location of pullouts, float plan, location of group gear, communications plan, and hand, paddle, and whistle signals. All persons should be prepared for an extended trip due to changing weather.

Consider arranging transport to and from the south side of the bay to avoid fighting the wind and current of the open water. Once there, kayakers can paddle the scenic and relatively sheltered south shore.

LOCAL HAZARDS

WEATHER AND TIDES

Winds are commonly from the northeast, east, and southeast during stormy or overcast weather, and from the southwest, west, and northwest during fair weather. Winds can come up quickly and turn a calm sea into confused chop or large breakers in a matter of minutes. Listen to daily weather forecasts for wind predictions. Fifteen knots can create an uncomfortable chop and anything over 25 knots is suitable only for experienced skippers in craft designed for offshore water.

In summer, early mornings are frequently calm or may have a light chop, but as the air over land heats and rises during the day, air rushes in from the sea, frequently producing a stiff west wind locals call the day breeze. This day breeze can reach 25-30 knots even on a clear summer day. The day breeze creates closely spaced whitecaps on the bay, and at times, significant surf on the bay's west-facing beaches. When this chop combines with ocean swells, often in late summer and fall, dangerous sea conditions can develop. Those who beach or anchor boats in the morning may not be able to safely leave until the seas calm down. Be prepared for, and advise your passengers of, the possibility of unexpected delays due to changing weather conditions. Be patient and wait for conditions to improve.

Tide differentials in the bay range from 15 feet to nearly 28

feet. The twice-daily cycle produces tidal currents that can be swift in constricted areas such as the channel entrances to Halibut Cove and Tutka Bay lagoons. Many of the small bays and coves around Kachemak Bay become tidal flats at low water, particularly at minus tides. Boaters need to refer to their tide tables and charts, and closely monitor depths, to avoid being grounded or trapped. Boaters have become stranded when losing a boat to the tide from an anchorage or beach. Avoid leaving a boat at anchor unattended. If beaching, place the boat above the high tide line and carefully secure it with lines.

Working alone, the bay's weather or tides can present problems for boaters, but when combined, they can quickly become deadly. When an ebb tide runs against a strong wind the combination can, in some areas, produce closely spaced standing waves called tide rips, in which waves can reach more than six feet high. Some of the areas subject to tide rips are described in the local hazards section.

HAZARDOUS AREAS

Tidal flats, sand and gravel bars, rocks, and drifting debris are all potential hazards to boaters on Kachemak Bay. By knowing where and when hazardous conditions occur, boaters can more easily avoid them. Please note the following information is provided as a courtesy, and is not a substitute for using proper navigational tools and techniques and practicing good seamanship.

Boats returning to the **Small Boat Harbor** from the west tend to cut close-in along the outermost tip of the Homer Spit. Outbound boats are urged to use caution when rounding the point to avoid collisions. Likewise, operators of returning vessels need to be aware that outbound boats also may be transiting close to the point. The entrance to the small boat harbor can be very rough due to waves and boat wakes, particularly when there is a strong northeast or southeast wind and a strong tidal current.

The **east side of Cook Inlet**, along the Homer bluffs west of **Bishop's Beach** and toward **Bluff Point** and beyond, is popular with local anglers, particularly around the edges of kelp beds. However, the

water is shallow in many areas, and there are numerous large boulders. Kelp can also foul water intake ports and cause engines to overheat.

The entire **west side of the Homer Spit** is shallow quite a distance off the beach, and there are old pilings in some places.

The **north side of Kachemak Bay**, from **Mud Bay** all the way to the **Fox River Flats**, is shallow a long way off the beach and is studded with boulders.

Fox River Flats State Critical Habitat Area includes the tidal flats and deltas of the Fox and Bradley rivers. The area is rich in waterfowl but difficult to reach by boat because of the tidal flats. The flats extend some three miles seaward from the river mouth, and can easily trap a boat during a falling tide. If this happens, stay in the boat and float free on the next flood tide, rather than trying to walk to shore and risk being caught by rising waters. There is also reported to be “quick mud” in parts of the flats, which can trap a person.

Submerged rocks lie in the constricted and winding south entrance of **Bear Cove.** A pinnacle, covered at high water, lies in the middle of the anchorage at the head of the cove.

Mallard Bay is a small but scenic bay with wilderness character. It is shallow, so consult your tide book, charts, and depth finder before anchoring.

Aurora Lagoon should be avoided by boaters. It is very shallow and has an entrance with many rocks. Much of the upland is privately owned. If you must enter, stick to the right (west) side. For two hours on either side of high tide the entrance is barely passable. The shallow lagoon dires at low tide, exposing a mudflat about 0.5 miles across. If attempted, extreme caution is required. Also, avoid disturbing the seals that haul out on the rocks north of the lagoon.

The **Grewingk Glacier Spit** has a long gravel beach and is a popular destination for camping and hiking. The spit extends into the bay from **Right Beach**

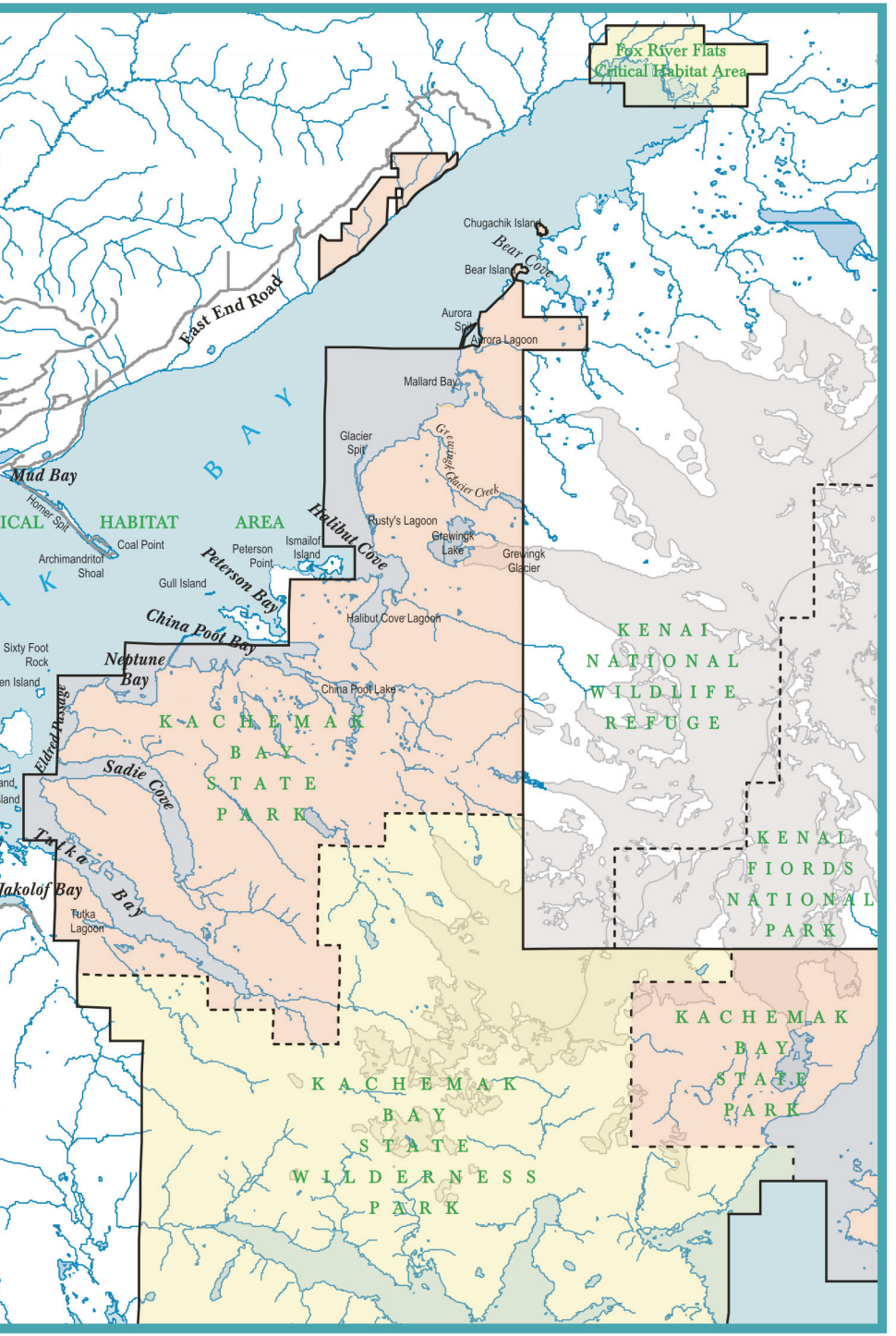
campground on the east side of Halibut Cove to its northeastern tip near the mouth of **Grewingk Glacier Creek**. The southwest side of the spit receives the full force of the day breeze and its subsequent chop, along with any ground swells entering the bay from the Gulf of Alaska. Tidal currents also run along the spit. Anchoring on the southwest side of the spit can be risky, and boats on anchor should not be left unattended. Smaller boats should be beached at high tide and carefully secured to the shore well above tide line.

Rusty's Lagoon, behind the Grewingk Glacier Spit, is somewhat protected from wind and waves, but campers should still choose sites carefully during high tides. The lagoon entrance, like Aurora Lagoon, has several large rocks and can be hazardous to those unfamiliar with it.

The channel into **Halibut Cove Lagoon**, while generally sheltered from the wind, is treacherous because it is narrow and has a strong tidal current during tide cycles. The entrance to the lagoon is carpeted with broad mussel beds that are exposed at mid-tide. Some boaters with shallow drafts who know the channel well can navigate in and out roughly three hours before or three hours after most high tides. The entrance should not be attempted at less than a six foot tide. If Halibut Creek is running strong, it can put enough silt into the water at the entrance to make it impossible to see the bottom, so a depth finder is highly recommended. Once past the mussel beds, the channel into the lagoon is hard against the west bank. The narrow channel and current (commonly 8 knots and reportedly as fast as 14 knots) can make turning around in the channel very difficult.

A boater who loses propulsion because they experience mechanical trouble or hit bottom and damage a propeller or lower unit may find themselves in serious trouble. Before entering the channel, prepare backup propulsion and have an anchor ready for immediate use.

Note: map not intended to be used for navigation


Fox River Flats
Critical Habitat Area
Chugachik Island
Bear Cove
Bear Island
East End Road
Aurora Spit
Aurora Lagoon
Mallard Bay
Glacier Spit
Grewingk Glacier Creek
Mud Bay
Homer Spit
HABITAT
AREA
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Halibut Cove
Rusty's Lagoon
Grewingk Lake
Grewingk Glacier
Peterson Bay
Gull Island
Halibut Cove Lagoon
China Poot Bay
Sixty Foot Rock
Neptune Bay
China Poot Lake
KENAI NATIONAL WILDLIFE REFUGE
KACHEMAK BAY STATE PARK
Eldred Passage
Sadie Cove
Tutka Bay
Tutka Lagoon
KENAI FIORDS NATIONAL PARK
KACHEMAK BAY STATE WILDERNESS PARK
KACHEMAK BAY STATE PARK

LOCAL HAZARDS

Big waves can form in occasional tide rips just off **Peterson Point**.

Peterson Bay is a scenic, sheltered bay with private shellfish farms, lodges, and the Center for Alaskan Coastal Studies' field station. Watch out for set nets and floating oyster farms. Many local shellfish farmers use blue buoys that can be hard to see under some conditions.

Gull Island, between Peterson and China Poot bays, serves as nesting ground for eight spcies of seabirds including kittiwakes, murres, cormorants, and puffins. Be respectful of birds on their nests as well as on the water. There are submerged rocks off the southwest end and southeast side of the island, and charted rocks off the northeast end.

China Poot Bay's extensive tidal flats support many species of waterfowl and shorebirds. At the mouth, breakers and standing waves are sometimes formed by a combination of an outgoing tide and a west wind over shallow reefs. China Poot Bay itself is also very shallow. There is a channel to the back of the bay along the north side. Go slow and use a depth finder. There is an uncharted rock in the channel just off the site of the private lodge.

Neptune Bay is shallow, largely intertidal, and goes dry at low tide a considerable distance out from the mouth of the Wosnesenski River. There are numerous rocks just offshore from Neptune, which present significant navigational hazards, and a number of rocks farther offshore from its seaward margin. Many rocks near Neptune Bay may be submerged or awash, depending on the tide. Also note that most of the beach is privately owned.

Lancashire Rocks, east of Sixty-foot Rock, are often visible, but use caution when near them.

From **Eldred Passage to Kasitsna Bay** there are many rocks,

some visible and some not. Try to stay mid-channel and be cautious.

Yukon Island and **Sixty-foot Rock** are part of the Alaska Maritime National Wildlife Refuge and are attractive habitat for sea otters, seabirds, and other wildlife. The passage between **Yukon** and **Hesketh** islands is especially scenic and contains good seabird habitat. Numerous rocks lie around Cohen, Yukon, and Hesketh islands.

Sadie Cove is a narrow glacial fjord. Its steep sides can amplify winds. Called “Sadie Eighties” by locals, these winds can cause dangerous sea conditions.

Avoid the rocky south side of **Tutka Bay**. The best route is along the north side (port side when entering), and once inside it is best to stay to the left or mid-channel until even with the Alaska State Park’s public use cabin at Sea Star Cove.

Tutka Lagoon can be reached via a narrow channel, passable by small boats, but only at high water of at least a 13-foot tide. The channel can be difficult to locate if the water is not clear. Go slow and use caution. A rock sill at the head of the channel helps keep water in the lagoon even after the tide drops. If the lagoon’s outgoing tide is against a strong southeast wind, a dangerous rip can develop at the entrance to the channel.

Jakalof Bay ends with a small tidal flat and a creek. Numerous shellfish farms line both sides of the inlet. A former log storage area and road lie on the west side. Enter Jakalof Bay on the east (port side when entering) side of the mid-channel island, and favor the east side of the pass since a reef extends out well past the island. The bay is studded with rocks, and is shallow quite a way out from the south shore. The mouth of Jakalof Bay can also be treacherous when the ebb opposes the wind.

Little Tutka Bay, Dunnings Lagoon, and **Little Jackalof Bay** (Bootleggers Cove) are small, sheltered bays ringed by private cabins and lodges. They have tidal flats and are studded with rocks. Careful navigation can provide opportunities to see shorebirds and intertidal life

in the frequently clear water. The dock in Bootleggers Cove is privately owned.

MacDonald Spit encloses the western half of Kasitna Bay. Private cabin sites cover most of the spit but intertidal areas are property of the state. Be aware, the western half of the bay goes dry at low water.

The coastline from **Barbara Point** to Seldovia, on to **Point Pogibshi, Dangerous Cape**, and the outer reaches of Kachemak Bay at **Flat Island**, is mostly steep and rocky. The area is popular with recreational salmon and halibut anglers. However, it is an exposed area with swift tidal currents and treacherous tide rips. Exercise great caution when venturing there. When the tide races off Point Pogibshi and Dangerous Cape, very large breaking waves can build.

OTHER HAZARDS

FLOATING DEBRIS

Fallen trees become floating hazards on the bay, especially after storms and high tides. Over time they become water soaked, partially submerged, and can be difficult to spot. Debris accumulated on beaches can also refloat during high tides. Scan the surface of the water when underway, and be particularly vigilant during high tide cycles.

OTHER BOATERS

Monitor VHF Channel 16 at all times. Good communication is a critical safety issue.

Local hazards include other boats. Constant vigilance and a working knowledge and proper application of the International Navigation “Rules of the Road” are necessary. When encountering other vessels, take early action to indicate your intention (i.e. “show a side” of your boat). Display your navigation lights during periods of restricted visibility.

Be watchful for ships and other large vessels. Cargo ships, passenger ferries, tugs and barges, cruise ships, and tour and charter fishing boats also ply the waters of the bay, some with surprising speed. Most large vessels maneuver poorly, need miles to stop, and may not

even see a small boat directly ahead. Stay well clear of large vessels. Cross behind them, never in front. If you encounter large wakes, slow down and turn into them at an angle.

Stay clear of fishing vessels with gear deployed, or in the act of setting gear. A purse seiner sets its net in a big circle, with the opposite end attached to a small skiff and sometimes to a lead or tie-off on the beach. Be careful not to get inside the set.

Gillnets may be difficult to see in choppy water; look for the buoy at the far end of the net and a row of white corks between it and the boat. During salmon season, set gillnets are common along the south shore including **Halibut Cove** and **MacDonald Spit.**

Crab and shrimp pots are marked with floats or buoys. Long line sets are marked with buoys and small flags. Lines can stretch long distances just under the surface. Give these a wide berth. Boaters are financially liable for any damage they cause to fishing nets and gear.

RESPONSIBLE BOATING

For all its rugged beauty, Kachemak Bay is delicate. Even unintentional acts can pollute the water, mar the land, or disturb fish and wildlife, causing stress to the point of interrupting essential survival activity or resulting in reproductive failure. Responsible boaters avoid harming the land, water, and wildlife of the bay. Treating the bay and its resources responsibly will help it continue to be enjoyed by those who follow us.

KEEP IT CLEAN

Take care when fueling. Powerboaters should have oil absorbent materials on hand to prevent fuel and oil from getting into the water. Use oil-absorbent pads in your bilge, and consider an oil-sensitive pump switch. Even a small amount of oil on the feathers of a seabird can kill it or its developing embryo.

Practice Leave No Trace principals when on board. Pack out everything you pack in. Garbage, including food scraps, can choke seabirds and unnaturally attract predators to nesting areas. Collect discarded fishing line, cut it into short pieces, and dispose of it properly. It can easily entangle and kill birds and other marine animals. Bring all garbage back to town and dispose of it properly.

Maintain good sanitation practices on the bay, its beaches, and at campgrounds. Use toilets before departure. Carry and use portable toilets. Federal law prohibits dumping sewage holding tanks into the water.

TREAD LIGHTLY

- Camp on the beach or gravel areas above the high tide line providing there are no shorebirds nesting nearby.
- Avoid walking on muskeg and other sensitive soils. Use developed trails when possible.
- Wash at least 200 feet away from shore and use biodegradable soap.

- Use a gas stove for cooking instead of a fire. If you must make a fire, build it on gravel or rock, use dead and down wood, and erase all traces of the fire afterward.
- Avoid damaging live trees and plants.
- Dispose of fish waste in the sea at low tide.
- Naturalize your campsite after use by dispersing any natural materials used, brushing over tracks, etc.
- Leave plants, rocks, antlers, fossils, and cultural artifacts in place.
- Keep food in airtight, bear-proof containers, and never cook, eat, or store food in your tent or sleeping area. Use food storage lockers when available.

RESPECT WILDLIFE

All marine wildlife is susceptible to disturbance. Animals have been forced away from feeding grounds or deprived of rest, and some actually struck by speeding boats.

Remain a respectful distance from animals and birds in or on the water, rocks, or cliffs. Rather than observing at close range, view with binoculars or spotting scope. If your presence causes a change in behavior, you are too close. Following are some further guidelines:

- Do not chase or try to corner wildlife to get a photo.
- Never feed wildlife.
- Keep pets under physical control at all times.
- Respect and avoid nests, dens, and resting places.
- Never handle, touch, or approach young birds or animals; most likely they are not abandoned but only left in place while the mother seeks food.

INTERTIDAL LIFE

Intertidal areas are habitat for many species of invertebrates. Avoid walking on barnacles or mussels or through tide pools. Refrain from picking up or rearranging rocks on the beach, which are probably sheltering dozens of creatures. Slowly and gently replace stones or other dislodged items. Avoid handling beach creatures.

If digging clams in Kachemak Bay, quickly rebury any undersized or unwanted clams. Unlike the razor clams of sandy beaches, these species cannot rebury themselves and will succumb to predators or dehydration.

SHOREBIRDS AND EAGLES

Nesting shorebirds may withdraw from their nests if humans come near, leaving eggs or chicks vulnerable to weather and predators. Shorebirds are often shy or inconspicuous, and people may be unaware of their nesting territories.

The appearance of shrieking terns circling and diving on hikers, other squawking birds overhead, or feigned “broken wing” behavior such as that exhibited by killdeer, often indicates concealed nests are near. Stay aware, particularly on gravel bars, grassy areas, or beaches. Some birds make small, exposed nests of beach debris that are easily destroyed. Step carefully and leave the area if you suspect breeding birds are present.

Bald eagles nest May through August. They are sensitive to noise and may abandon an active nest if disturbed. Keep well clear of active eagle nests.

MARINE MAMMALS

If animals show signs of disturbance, immediately but quietly leave the area. With seals and sea lions, signs of disturbance could include behavior such as herd movement toward or into the water, increased vocalization, simultaneous head-raising, or increased interaction with other animals. Disturbed whales, dolphins, or porpoises may rapidly change swimming direction or speed, display erratic swimming patterns, tail slapping, or attempts by the female to shield her calf from the source of the disturbance. Even if no obvious disturbance is detected, approach marine mammals in the water no closer than 100 yards.

Limit the time spent observing any particular animal(s) to 30 minutes. Never herd, encircle, or corner animals between the boat and shore; always allow them an escape route. Avoid excessive speed, or abrupt changes in speed or course, when around marine mammals.

Do not pursue, chase, herd, leapfrog around, get between mothers and young, or force whales toward shallow water. Slow down to an idle well before reaching the 100-yard perimeter. Stay back from breaching or flipper slapping whales. Stay away from the bubble curtain emitted by humpback whales to herd food. Humpback whales navigate by sound, not sonar. If they are focused on feeding, they could unknowingly either come up underneath or down upon the boat. If approached by a whale, put the engine in neutral (keep it running) and let the animal swim past. If you need to cross the path of a whale, pass behind it.

Do not approach resting, fishing, or hauled out seals or sea lions close enough to cause them to enter the water or otherwise change their behavior. Forcing them into the water, or preventing them from hauling out, may cause critical energy loss, pup-mother separation, or even injury to pups. Maintain a slow, steady parallel-to-shore course while in their vicinity. Sea lions and seals are most vulnerable to disturbance May through July during pupping.

Dead sea otters that wash up on Kachemak Bay beaches frequently exhibit traumatic injuries from boat strikes. Slow down when in

the vicinity of sea otters as they sometimes have difficulty judging speed and distance and fail to get out of the way of fast boats.

Steller's sea lions are federally protected under the Endangered Species Act. Seals and sea otters are federally protected by the Marine Mammal Protection Act.

SEA BIRDS

Seabird colonies are vulnerable to reproductive failure as a result of disturbance. Nesting seabirds can be permanently displaced from otherwise desirable locations or can be temporarily driven off, inadvertently knocking their own eggs off the ledge or exposing their eggs or chicks to excessive heat or cold and predation. Some of Alaska's seabirds are already depleted and highly stressed. Stay far away from nesting areas, and do not blast horns or whistles or make other loud noises in the vicinity of seabird nests. When birds take flight in groups or waves rather than individually, they are disturbed and you may be too close. Bobbing heads

and shrieking are also signs of disturbance.

Skirt around flocks of resting or feeding seabirds on the water. The prey ball of schooling fish, often created by diving seabirds, may be dispersed, causing loss of important time and energy for feeding birds.

If you walk on beaches or cliffs, be careful to avoid crushing burrowed or concealed nests in the grass.

Sea ducks, including harlequins, begin molting in July, leaving them unable to fly. Displacing them from their shelter and feeding areas quickly depletes their energy reserves. If you spot sea ducks, maneuver your boat well around them instead of forcing them to move.

OPERATING TIPS

POWERBOATERS

When underway, always maintain a proper lookout. Scan the water back and forth constantly for hazards, especially when facing into the sun, in fog or restricted visibility, in rough water, and when rounding points or navigating narrow winding passages. Monitor VHF channel 16 at all times. You never know when you may need help or when you may be the closest vessel to someone who is having an emergency and needs your help.

Carry emergency communication and distress signaling devices on your person. Emergencies can happen quickly and you may not have time to get the gear you need before you end up in the water. Your chances for a speedy recovery can be greatly increased by having communication and signaling devices on your person.

Anchorages may be used by several boats, so be considerate and give others room. Allow plenty of “swing room” in case the wind shifts. If you are the first in an anchorage, position your boat so that others may also anchor safely. Calculate the tidal range in the anchorage so you are not stranded on a rocky shore at low tide. Respect the peace of the anchorage by refraining from playing loud music, shouting, or running generators excessively.

Watch your wake, especially when passing paddlers or other small craft, or when near drifting, trolling, or anchored boats.

Limit your use of public docks and mooring buoys to the time actually necessary for your stay. Be prepared to share with other boaters.

PERSONAL WATERCRAFT OPERATORS

If new to operating a personal watercraft (PWC), take basic boating safety and PWC-specific courses and develop skills under the instruction

of an experienced operator. Read the owner's manual carefully for important information specific to the model, such as safety warnings and recommendations, load capacity, and maintenance schedule.

PWCs are boats, and operators have the same responsibilities as other boaters. However, PWCs handle differently than other boats. The water jet drive and shorter overall length make the PWC extremely responsive to even a small movement of the handlebars.

PWCs are steered by directing the water jet steering nozzle while powering forward. Throttle must be applied for forward movement. When the operator releases the throttle, the ability to steer is eliminated, and the vessel will coast to a stop. However, on newer models, various off-throttle steerage features may exist.

Know your watercraft's minimum stopping distances, which may vary depending on the type of PWC and vehicle load and water conditions. Ride within your limits and those of your passenger(s). If renting a PWC, research the boating rules that apply to the type of PWC you are renting before you depart. Never loan a PWC to an inexperienced person. Many PWC accidents involve operators who did not own the boat.

Operators must have the skill and ability to reboard the boat in deep water. Even the best method of deep water reboarding, from the rear of the boat, can be difficult in rough water and/or if the operator is tired.

To avoid being stranded, refer to the manufacturer's recommendations on re-righting the PWC prior to driving. When righting a capsized watercraft, reference the decal located astern on the watercraft. Failure to properly right a capsized PWC can damage the engine from water in the exhaust system entering the engine.

Slow to no-wake speed when within 100 feet of anchored boats or paddle craft, or when within 200 feet of the shoreline, a swimmer, diver's flag, dock, or launch ramp. Do not operate in shallow water due to possible environmental impact and/or damage to the water jet pump, hull, or water cooling system.

OPERATING TIPS

COASTAL PADDLERS

Sea kayaks can be difficult to see under conditions with limited visibility, rough water, or strong backlighting from the sun, and they do not appear on radar. In these situations, it helps to stay in a “pod” instead of in a string of boats. Wave paddles, if necessary, to attract the attention of the operators of approaching boats. Strive for high visibility. Wear bright clothing to be seen easily by other boaters at a distance. Avoid kayaking at night.

Whenever possible, keep out of busy powerboat traffic lanes. Keep a lookout for large boat wakes or wave rebound off the shoreline, rocks, and coastal cliff faces.

Avoid paddling alone. In the event of a capsize, self-rescue can be difficult if you are alone.

When on the beach, move your boat well above the high tide line and tie it securely. Many paddlers have returned to their boat only to discover it floated away on a high tide or was swamped by a large boat wake breaking on the beach.

Never try to outrun a bad weather forecast. Keep close to the shoreline, and cross open water where the distance is the shortest. If bad weather suddenly appears, you can become dangerously exposed in open water with no way out.

Even the fastest sea kayaks are capable of speeds of only 6 mph. Avoid paddling in strong winds, fast tidal current, or chop over one foot. A 15-knot headwind will significantly increase your workload and decrease your speed.

Consider using a paddle leash and avoid overloading decks.

EMERGENCIES

SURVIVING COLD WATER

Cold water immersion plays a significant role in the majority of Alaska's boating fatalities. Generally accepted by researchers to be water temperatures below 70 degrees Fahrenheit, cold water is virtually all water in Alaska.

CAUSES OF COLD WATER IMMERSION

The following are the leading causes of cold water immersion:

Swamping/capsizing: due to overloading, poorly secured or shifting loads, improper boat handling in rough water, loss of power or steerage, anchoring from the stern, wrapping an anchor, mooring, or pot line around a drive unit, or taking a wave over the transom during a sudden stop.

Ejection: primarily caused by improper lookout, resulting in a collision with another boat, hitting a submerged object such as a log, or running aground while underway. The risk of ejection also exists when operating a boat in restricted visibility such as fog or in the dark, and during the fall with diminishing daylight.

Falling overboard: most commonly due to slipping, a loss of balance while standing or moving around the boat, striking another boat or object, sudden grounding, or when reaching for objects overboard.

Swimming to retrieve a drifting boat: a loose boat drifting away produces an almost irresistible impulse to intentionally leave a place of safety to swim after it. Do not give in to this impulse.

EFFECTS OF COLD WATER IMMERSION

Most of Alaska's boating fatalities involve cold water immersion that, according to research, has three distinct stages:

1. INITIAL REACTION: COLD SHOCK RESPONSE
   - Within the first 1-3 minutes

- Involuntary gasping and hyperventilation can result in water inhalation
- Increased heart rate or blood pressure, panic, and vertigo may occur
- Higher risk of drowning if not wearing a life jacket

2. SHORT TERM IMMERSION: COLD INCAPACITATION
- Within 10-30 minutes of immersion
- Localized cooling of extremities affects muscles and nerves, impairing their function
- Arms and legs become stiff and unresponsive; activities such as swimming, reboarding a boat, using a radio or distress signal, or holding on to a floating object become difficult or impossible
- Higher risk of drowning if not wearing a life jacket

3. LONG TERM IMMERSION: IMMERSION HYPOTHERMIA
- After at least 30 minutes of immersion
- Gradual cooling of the body core will occur at a rate dependent upon factors including water temperature, clothing worn, body type, physical condition
- As body core temperature falls, hypothermia symptoms will range from mild to severe, eventually leading to unconsciousness
- Higher risk of drowning if not wearing a life jacket.

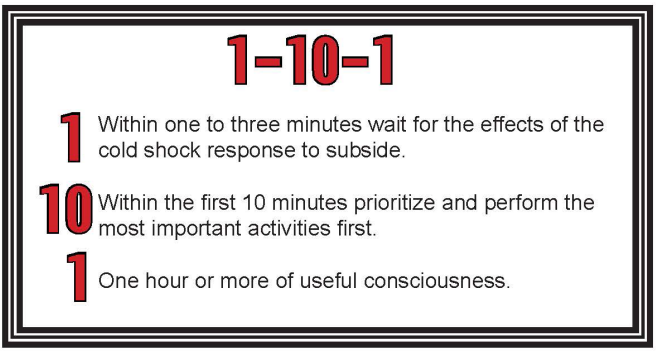
PREPARING FOR COLD WATER IMMERSION

Most immersion events happen quickly and unexpectedly, so it is important to be prepared. Taking these simple steps will help ensure the best possible outcome:

- Always wear a life jacket when in an open boat or on an open deck. Trying to put your life jacket on in cold water is extremely difficult and costs precious time and energy.
- Carry emergency communication and distress signaling devices on your person. Items such as an emergency locator beacon, a handheld VHF radio, cellphone, a whistle, and some visual distress signals may save the day.
- Unless the boat is designed so a person in the water can easily get back into the boat unassisted, equip the boat with a reboarding device, such as a rope ladder, foot sling, or a swim platform.
- Carry survival suits when boating offshore. Make sure they are well maintained and readily accessible.
- Practice reboarding your boat, donning immersion suits quickly, signaling, transmitting MAYDAYs, rescuing a person who has fallen overboard, and other cold-water survival techniques described in this section. Drills are fun and build skill and confidence. Classes are available at AlaskaBoatingSafety.org.

SURVIVING COLD WATER IMMERSION

Surviving cold water immersion depends on adequate flotation (to prevent drowning) and timely self-rescue or rescue by others. Wearing a



life jacket, carrying communication and distress signaling devices on your person, the ability to swim, a controlled entry into the water, surface conditions, length of time in the water, associated injuries or medical conditions, and alcohol use can all influence the outcome.

1-10-1 is an easy way to remember what to do in the event of a sudden cold water immersion. The information below does not apply to all persons in all cases.

1 Minute

The initial reaction, or cold shock response, usually passes within the first few minutes. Wait for the effects of cold shock to subside. Resist the urge to fight the water. Float on your back and wait for gasping and hyperventilation to subside. Understanding that this stage will soon pass may help reduce panic.

10 Minutes

Once breathing is under control, most people have at least 10 minutes to take the actions necessary for self-rescue or for obtaining rescue before incapacitation occurs. Do not waste time and energy removing shoes or clothing; even small amounts of air trapped in clothing will provide some buoyancy and thermal protection. Perform the most important functions first:

- If not already worn, attempt to don life jackets or survival suits, and then assist others in doing so.
- Account for any other members of the party. Check around and under the boat.
- If not already deployed (and depending on the circumstances), activate an emergency communication or distress signaling device such as an emergency locator beacon, transmit a MAYDAY on a VHF marine radio, or call 911 (or *24) on a phone. If in range of others, activate visual and sound distress signals.
- Get all persons as much out of the water as possible. Water transfers heat much faster than air of the same temperature. For example, if the boat is not overturned, use the boat's re-boarding devices and practiced techniques to get back in. If overturned, climb on top of the hull. If separated from the boat use any other available objects to get as much of your body out of the water as possible, even if it feels colder.

The Swim/Don't Swim Decision:

Staying with or near a floating boat may be the best choice, especially if the event was witnessed or emergency communication was successful. Even if capsized or swamped, a boat may offer supplemental flotation and is easier for potential rescuers to spot than a person in the water. Swimming in cold water can reduce survival time, and the average person will lose more heat faster by swimming than by remaining still. Distances can be deceiving when on the water, and safety can look closer than it really is. Here are some situational factors to consider when making the swim/don't swim decision:

- Whether or not a life jacket or survival suit is worn
- Whether a place of safety is close (less than 800 yards away or 45 minutes swimming time based on fitness level and swimming ability)
- The likelihood of rescue by others; i.e., the event was witnessed or others are aware of, and are responding to the emergency
- The ability to get in or on top of the boat or other object to get some or all of your body out of the water
- Whether you would be abandoning a place of relative safety to try to swim
- Whether calm or moving water (e.g. a river)
- Physical ability and medical condition of the party members

Swimming in open water:

Use a "head out" breaststroke or modified backstroke, using just forearms and lower legs. Keep upper arms and elbows close to the sides of chest, upper legs close together and knees slightly bent. Move in an even and sustained pace and conserve energy.

1 Hour

Even in cold water a person may have 30 minutes or more before their core body temperature begins to drop. If unable to self-rescue, the priority may now become slowing the rate of heat loss to extend useful consciousness and survival time. Keep movement to a minimum. Protect areas of high heat loss (e.g., head, neck, armpits, groin, sides of the torso) as much as possible.

If in open water, some life jacket designs will allow the person to use the “Heat Escape Lessening Position” (HELP). Grasp the shoulders of your life jacket by crossing your arms, or place hands in arm pits and cross lower legs and raise your knees as close to your chest as possible while still maintaining position in the water.

Small groups can form a tight huddle by intertwining arms so bodies work together to slow heat loss. Small children and injured or unconscious persons can be placed in the center of the huddle to be supported by the group.

In any case, be prepared to activate visual and sound distress signals when potential rescuers are in range.

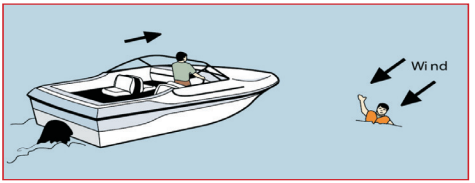
The huddle position helps preserve heat, keeps you together to better be spotted by rescuers, and can be a way to aid an injured person in the water.

PERSON OVERBOARD RESPONSE

1. Everyone put on a life jacket (if not already worn).
2. Keep eyes on the victim at all times. If possible, assign a person on the boat to serve as the lookout.
3. Immediately throw supplemental flotation, ideally with attached floating line, to the person (e.g. life ring, seat cushion, horse shoe buoy).
4. Approach the person from downwind or downstream if possible. To avoid the risk of striking the victim with the boat, when close enough to reach for the person, use an oar, paddle, or other item to pull them to the boat. Alternatively, use a throw ring or

cushion with a line attached to pull the person to the boat.

5. Do not go into the water for the victim, except as a last resort.
6. Direct passengers as necessary to assist and to balance the boat, then assist the person in getting out of the water. If pulling a victim in over the stern, all engines should be stopped.
7. Treat the victim to your level of training.



Approach a victim in the water from downwind and/or down current.

TREATING IMMERSION HYPOTHERMIA

The goals for treating immersion hypothermia patients are:

- Handling gently because cold heart muscle and vasculature of severely hypothermic patients are vulnerable to physical exertion, jarring, or moving from a horizontal to vertical position too quickly.
- Providing basic life support as necessary.
- Preventing further heat loss by removing wet clothing, drying victims off and putting them in dry clothes and a sleeping bag or blankets and vapor barrier. Shivering is good.
- Securing transport to medical care for moderately to severely hypothermic patients.

A person found unconscious in cold water, even if they appear dead, may still have a chance for survival. If the victim was known to be submerged for an hour or less (or if the time of submersion is unknown), providing basic life support to your level of training and obtaining medical help quickly could save a life.

CARBON MONOXIDE

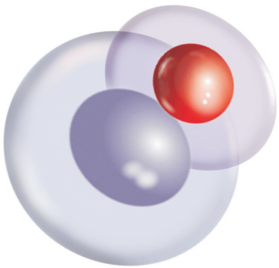
Carbon monoxide (CO) poisoning, the leading cause of accidental poisoning death in America, is now recognized as a serious problem on our nation's waters. Carbon monoxide is an odorless, colorless, and tasteless gas formed by the incomplete combustion of hydrocarbon fuel,

which can cause seizures, unconsciousness, and death.

Carbon monoxide binds to red blood cells 240 times more aggressively than oxygen, displacing oxygen and causing metabolic asphyxiation. Depending on concentration, CO poisoning can happen very quickly, sometimes with just a few breaths.

Exposure to improperly vented or malfunctioning cabin-heating systems and exhaust gasses from generators and engines are the main culprits. Exhaust fumes and carbon monoxide can accumulate in enclosed cabin spaces and under swim platforms. Use care when running an engine or generator continuously if the boat is closed up in cold or bad weather, particularly when the boat is not in motion. Be alert to any indication that exhaust fumes are present and ventilate accordingly.

Carbon monoxide concentrations can be especially high under and around swim platforms. Everyone on board should keep well clear of engine and generator exhaust ports when they are running. Swimmers near the stern, or those launching or retrieving a dingy over the stern platform, are particularly vulnerable. If there is a need to be around swim platforms or exhaust ports for any reason, first shut the engines down, and allow sufficient time for fumes to dissipate.



Because CO is difficult to detect by sight or smell and poisoning can happen quickly, there is often little warning. Carbon monoxide poisoning is difficult to diagnose because of a wide range of vague symptoms. Fatigue and headache are most common, but others include the flu-like symptoms of dizziness, vomiting, muscular twitching, weakness, and sleepiness. Victims often have a gray or ashen appearance. If someone feels dizzy or loses consciousness while on board, consider the possibility of CO poisoning. If you think someone could be suffering from CO poisoning, get them away from the suspected source and into fresh air immediately. Be prepared to provide basic life support up to your level of training and call for medical assistance.

One of the best protections against carbon monoxide exposure is a regular and complete inspection of your engine's exhaust systems. If you notice a change in the sound of the exhaust system or appearance of its emissions, shut the unit down and have it inspected and repaired by a

competent mechanic.

IF YOU NEED ASSISTANCE

Every boat operating in Kachemak Bay should have a marine VHF radio. VHF Channel 16 is your direct connection to help. Both the U.S. Coast Guard and the Homer harbormaster monitor Ch. 16 around the clock, and other boaters are required to monitor it if so equipped when underway.

A cellphone may not be the best marine communications device where you are boating; backup devices should always be carried. Numbers for local services are listed at the end of this publication. The Coast Guard has a special toll-free emergency cellphone contact code available to those with a 907 area code, which is *CG (*24). This should put you in direct contact with a Coast Guard unit.

If you require assistance on the water, the Coast Guard may dispatch a unit from Homer's volunteer Coast Guard Auxiliary flotilla, known locally as Rescue 21. However, in nonemergency situations, the Coast Guard and the Auxiliary may decline to render assistance if commercial assistance is available. Assistance also might come from the Alaska State Troopers, a State Park Ranger, or the National Marine Fisheries Service. The harbormaster's office may dispatch one of its work

boats to render assistance to boats disabled inside, or just outside, Homer Harbor. The Coast Guard or harbormaster's office may also call a local water taxi operator to provide assistance, such as bringing out fuel to an inoperative boat. During the busy summer season, water taxies' nonemergency response times may be long.

EMERGENCY RADIO PROCEDURES

There are three types of emergency radio messages:

SÈCURITÈ - to notify others of bad weather or other hazards (pronounced se-cure-et-tay).

PAN-PAN - used when calling station has an urgent message for mariners (pronounced pon-pon).

MAYDAY - when a boater is experiencing an immediate threat to life.

EMERGENCY RADIO CALL PROCEDURES

1. MAKE SURE RADIO IS ON
2. SELECT CHANNEL 16
3. PRESS & HOLD TRANSMIT BUTTON
4. CLEARLY SAY: ***MAYDAY, MAYDAY, MAYDAY***
5. ALSO GIVE:
   - **VESSEL NAME & DESCRIPTION**
   - **POSITION/LOCATION**
   - **NATURE OF EMERGENCY**
   - **NUMBER OF PEOPLE ON BOARD**
6. RELEASE TRANSMIT BUTTON
7. WAIT 10 SECONDS — IF NO RESPONSE, REPEAT

16
VHF-FM

CONFIRM ALL PERSONS WEARING LIFE JACKETS!

www.alaskaboatingsafety.org

IN AN EMERGENCY:

1. Make sure radio equipment is on and channel 16 selected.
2. Decide which of the three messages to use. Then say it clearly three times (such as MAYDAY, MAYDAY, MAYDAY).
3. Say:

"This is the vessel _____" or "_____" (your name).
"My position is _____" (give latitude/longitude if possible).
"The nature of my emergency is _____."
"I have _____ persons on board."

4. Listen. If there is no response within 10 seconds, repeat your

broadcast until you are answered. Try different emergency channels if necessary. Continue until acknowledged. Activate your EPIRB if you are unable to make contact.

If you get a response, be prepared to give the following information:

- Vessel description: length, color, propulsion type, registration #
- On-scene weather: wind speed, wind direction, sea height, swell direction, visibility, ceiling
- Communication and survival equipment on board
- Readio frequencies available
- Operator's name and phone number
- Owner's name and phone number
- Home port

CONTACTS

EMERGENCY

Coast Guard
VHF Ch. 16
Cell phone - *CG (*24)
1-800-478-5555
1-907-463-2000

Alaska State Troopers
VHF Ch. 16
tel. 911
1-907-235-8239

Rescue 21 (Coast Guard Auxiliary, Homer flotilla)
VHF Ch. 16

NON-EMERGENCY

Homer Harbormaster
VHF Ch. 16
1-907-235-3160

Seldovia Harbormaster
VHF Ch. 16
1-907-234-7886

Cook Inletkeeper (pollution)
1-907-235-4068

Alaska Department of Environmental Conservation
1-907-269-7500

RESOURCE AGENCIES

Alaska Department of Fish and Game
1-907-235-8191 - Office
1-907-235-6930 - Recorded sport fishing update

Alaska Division of Parks and Outdoor Recreation
Kachemak Bay State Park
1-907-235-7024 - Homer Ranger Station
1-907-235-6999 - Halibut Cove Ranger Station (summer)
VHF Ch. 16 (summer)

National Marine Fisheries Service
1-907-235-2337 Enforcement Office, Homer

U.S. Fish and Wildlife Service
Alaska Maritime National Wildlife Refuge
1-907-235-6546

OTHER

National Weather Service
Alaska Weatherline
1-800-472-0391 press 3, then 2, then 2 for area 4A
www.weather.gov/afc, click Forecasts, then Marine Forecast and find the location, either Kachemak Bay or the surrounding Cook Inlet waters.
VHF Ch. WX-2 or WX-8

RECOMMENDED READING

- *Alaska Boater's Handbook*, published by the Alaska Office of Boating Safety
- *Alaska: Cape Spencer to Beaufort Sea*, published by U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service
- *Alaska Marine Mammal Viewing Guidelines*, published by the National Marine Fisheries Service, available at www.fakr.noaa.gov
- *Alaska's Seashore Creatures*, by Carmen and Conrad Field, published by Alaska Northwest Books
- *America's Boating Course*, an interactive CD program published by the Coast Guard Auxiliary and the U.S. Power Squadrons
- *Birding Hotspots*, Homer Alaska, by Rich Kleinleder, published by the Kachemak Bay Shorebird Festival
- *Boat Owner's Guide to Homer*, published by Homer Chamber of Commerce
- *Boating Skills & Seamanship*, published by the Coast Guard Auxiliary
- *Chapman Piloting*, edited by Elbert S. Maloney and published by Hearst Maritime Books
- Federal Requirements and Safety Tips for Recreational Boats
- *Fog on the Mountain*, by Frederica de Laguna, published by Kachemak Country Publications
- *Kachemak Bay Years*, by Elsa Pedersen, published by Hardscratch Press

RECOMMENDED READING

- *National Geographic Trails Illustrated 763* - Kachemak Bay State Park topographic map, published by National Geographic

- *Port of Homer Small Boat Harbor, Fish Dock, Pioneer Dock, Deep Water Dock*, published by Port of Homer

- *Seldovia Alaska*, by Susan Woodward Springer, published by Blue Willow, Inc.

- *The History of Kachemak Bay, The Homer Spit, and Archeology of Kachemak Bay*, all by Janet Klein, published by Kachemak Country Publications

- *Water Wise: Safety for the Recreational Boater,* by Jerry Dzugan and Susan Clark Jensen, published by the University of Alaska Sea Grant Program and the U.S. Marine Safety Association

RESCUE READY

Always wear a life jacket when in an open boat or on an open deck.

Carry emergency communication and distress signaling devices on your person.

Attach the engine cut-off device when underway.

Equip the boat with at least one means of reboarding.

File a float plan and find more information at PledgeToLive.com.

For classes, presentations, and educational resources visit AlaskaBoatingSafety.org.

Alaska Boating Safety Program