Pale Kai Outrigger Safety Procedures

Pale Kai Outrigger Canoe Club has implemented mandatory safety procedures, which are to be observed by each paddler anytime a Pale Kai Outrigger Canoe is paddled on any body of water. A thorough understanding and observance of the safety procedures outlined in this policy reduce the risks associated with outrigger canoe paddling and increase each participant's enjoyment.

Pale Kai Outrigger would like to thank Kawika Sands for providing the information on which we based our safety policy.

Some Facts about Outrigger Canoeing:

- Outrigger canoes can and do sink.
- Weather conditions can "swamp" an outrigger canoe, making it very difficult or impossible to bail out water.
- Hypothermia can occur within 30 minutes of exposure to 54-degree ocean water.
- Even if all safety procedures are followed, you can still get hurt or die while participating in this sport.

Club Waiver:

Before anyone is allowed to paddle, they must read, understand, agree to, and sign the SCORA Release of Liability Waiver form.

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Initials

- ## Basic Canoe Terminology:

  - Ama- The “floater” part of the canoe
  - Iako- Arched crossbeams which fasten the floater (ama) to the hull (‘akea)
  - Gunwales- Topsides of the canoe
  - Bow- Front end of the canoe (maka ihu)
  - Stern – Rear end of the canoe (moamoa)
  - Huli Pau- Canoe capsizing
  - Seat numbering – Seats are numbered starting from the Bow (seat 1) to the Stern (seat 6)

- ## Basic Paddling Instructions:

  Download the paddling manual from our website.

  Each paddler must familiarize themselves with the names and locations of the major landmarks within the practice area (see attached exhibit – “Practice Area Map”)

- ## Recommended Equipment for Paddlers:

1. Spring suit or full wet suit (protects against hypothermia)
2. Booties (protects your feet, keeps them warm, helps you get a grip on the floor of the canoe)
3. Hat (keeps your eyes shielded, head warm and can be used as a bailer)
4. Sun screen (apply prior to getting into the canoe)

Mandatory Canoe Equipment

1. VHF Marine Radio (Hand held, submersible)
2. Marine Signal Kit
3. PFD’s for all paddlers on board
4. A minimum of two bailers per canoe (3 on windy or choppy days)
5. Extra paddle
6. Drinking water
7. Extra rigging tubing

Note: It is advisable that each canoe carry an operational cellular phone in the dry bag at all times and mandatory that an operational cellular phone be carried in the dry bag on all single canoe outings.

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Initials

Always check weather conditions – Do not leave shore under adverse weather conditions such as gale force winds, high seas, thunderheads or thick fog. Review the latest weather report on Channel 1 on the VHF Marine Radio or the "Diablo Canyon Weather Forecast" (543-3768) before leaving shore.

Equipment Check:

The steersman is responsible for checking the following equipment before leaving shore. Do not leave shore if any equipment listed below is missing or broken:

A) All paddlers must have a PFD on board.
NO PFD, NO PADDLE, NO EXCEPTIONS!

B) A minimum of two (2) bailers per canoe with one of the two being a 5-gallon bucket (3 on windy or choppy days).

C) VHF Marine Radio – Present in our practice session with one (1) in each canoe.

D) Marine Signal Kit – Present in your practice session with one (1) in each canoe.

E) Extra Paddle – Present in your practice session with one (1) in each canoe.

F) Drinking Water

G) Extra Rigging Tubing

H) Check canoe and ama for cracks and water leaks.

I) Check all rigging.

J) Secure plugs in front & rear air tanks and ama.

- **Each Paddler is responsible for checking the following equipment before leaving shore:**

A) A PFD is on board for you

B) Reasonable clothing to protect against hypothermia

C) Your Paddle!

Raising and Lowering Canoe On to the Dollies:

Avoid Back injuries! Bend your knees and lift the canoe on one end with at least three people.

A) Lift the canoe on the count of 3 (“one, two, three, lift”) so that you are all raising the canoe at the same time.

B) Slide dolly between seat 3 and seat 4 so that the canoe is evenly balanced (Watch your fingers!)

C) Slowly, lower the canoe on to the dolly

Moving Canoe from the Site to the Beach:

A) One person should be on each end of the canoe and on each lako.
B) Carefully, dolly the canoe across and down the street. (Watch out for traffic!)
C) Dolly the canoe to the shoreline on a sandy part of the beach (do not lower canoe on the rocks)
D) With at least three persons, bend your knees and lift the canoe on the count of 3 (“one, two, three, lift”) so you are all raising the canoe at the same time.
E) Remove the dolly from under the canoe
F) Slowly lower canoe onto the beach.

Pale Kai Fitness Test

The Coaches Are Responsible for Evaluating the Crew’s Capabilities.

Each paddler must be able to:

A) Jump out of the canoe in deep ocean water
B) Swim around the canoe
C) Climb back in the canoe un-assisted
D) Bail, if necessary, and continue paddling

Notify the Harbor Patrol Before Paddling:

The Port San Luis Harbor Patrol does not need to be notified of every practice session. It is only necessary to notify them when one canoe is going out alone, or when multiple canoes are going out in rough or questionable conditions, or going north of the Avila Jetty. Call them on Channel 12 on the VHF Marine Radio.

A) Turn on the VHF Marine Radio

B) Change to Channel 12 for the Port San Luis Harbor Operations

C) Press and hold the PTT button and say “Port San Luis Harbor Patrol, this is Pale Kai Outrigger on Channel 12 – Over”

D) When they respond, tell them how many people are paddling and where you are paddling.

E) Turn off the Radio, bag it and place in the floatable container *(**NOTE**: THE RADIO IS WATERPROOF BUT DOES NOT FLOAT!)*

NOTE: The Port San Luis Harbor Patrol may not be able to receive our radio signal North of the Avila Jetty due to mountain interference.

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Initials

Launching the Canoe from the Beach:

Once all of the equipment is on board and checked, and the harbor patrol has been notified if necessary, you are ready to “shove-off”. The steersman is now in charge, follow his/her directions.

A) Wait for the steersman to give the command to move the canoe from the shore to the water. (Lift the canoe, do not drag it on the sand/rocks).

B) Walk the canoe out into the surf and wait for the steersman to give the command to climb aboard and paddle.

C) Paddle hard to get out of the impact zone.

D) If a wave is going to crash on the canoe, do not have your legs wrapped under the seat to avoid leg injury, lean toward the ama to prevent a huli.

E) If you huli in the impact zone, don’t panic. Be aware that you are in shallow water. To avoid being pinned down or crushed by the canoe, do not stay directly between the canoe and the shore. Count heads (make sure everyone is accounted for) and watch out for the next wave. Get out of the way of the canoe, should the next wave come crashing in. Follow the steersman’s instructions.

F) If you get swamped in the impact zone, follow the steersman’s instructions.

Out At Sea

A) Enjoy your work out; however, if you feel dizzy, faint or have difficulty breathing, STOP and notify the steersman.

B) Steersman – If two (2) or more Canoe’s are paddling at the same time it is advisable that they keep each other in visual range (to assist in an emergency situation).

C) Steersman – stay close to shore in off-shore gusty wind conditions (avoid being blown out to sea).

D) Steersman – keep an eye out for other watercrafts (avoid collisions).

E) If you paddle North of the Avila Jetty (out of radio range) it is mandatory that 2 or more canoes go together and stay together, and that each canoe has an operational cellular phone in a dry bag.

F) If and when you huli pau out at sea, don’t panic. Know your responsibilities so that your actions are automatic.

Seat 1 – Stays at the bow of the canoe and assist the steersman in turning the canoe (if needed).

Seat 2 – Works with Seat 4 to right the canoe. Make sure the ama does not come crashing down on someone’s head!

Seat 3 – Gathers loose bailers, paddles, PFD’s and other gear before they drift away.

Seat 4 – Works with Seat 2 to right the canoe. Make sure the ama does not come crashing down on someone's head. Initials

Seat 5 – Gathers loose bailers, paddles, PFD's and other gear before they drift away.

Seat 6 – Stays at the stern of the canoe, Counts heads to make sure everyone is accounted for, supervises the huli drill and directs Seat 1 in turning the canoe (if needed).

Once the canoe has been righted, Seat 3 and Seat 5 climb into the Canoe and begin bailing (quickly), while the rest of the crew position themselves along the ama side of the canoe at their assigned seat, Do not get into the canoe until directed to do so by the steersman.

If weather conditions are swamping the canoe and you are unable to bail out water fast enough, try turning the righted canoe into a swell, and have everyone get on the stern of the canoe and force it down under water as far as you can. As the stern "sinks" the bow raises and this is emptied of water. Timed with a swell, release the canoe at the same time at the top of the swell (when the bow is at its highest point). The canoe should dart up and forward and hopefully, spill out more water. Quickly bail out the remaining water.

IMPORTANT: If you are unable to right the canoe or bail out the water, YOU ARE IN A SERIOUS SITUATION, RADIO FOR HELP! (See Emergency Situations below).

Returning to Shore:

A) Follow the steersman's instructions when returning to shore.

B) Steersman – Avoid catching waves (this increases the risk of breaking our equipment). If needed, wait outside the breakers until there is a break in the sets of waves. Line the canoe up perpendicular to the waves (not at an angle) this will reduce the risk of doing a "huli" in the surfline.

C) Steersman – watch out for swimmers and children on the beach! Bring the canoe in between the river mouth and the white buoy. Do not **"surf"** the canoe into shore if at all possible, the canoes are not designed for surfing, people can get hurt and equipment can be broken.

D) If a wave is caught and the canoe is turning sideways, you may have to lean out either on the right or left of canoe to prevent a huli. (Yes the canoe can huli over the ama!) Listen for the steersman's instructions. Seat 1 may be required to help the steersman keep the canoe straight.

E) If you huli in the impact zone, don't panic. Be aware that you are in shallow water. To avoid being pinned down or crushed by the canoe, do not stay directly between the canoe and the shore. Count heads (make sure everyone is accounted for) and watch out for the next wave. Get out of the way of the canoe, should the next wave come crashing in! Follow the steersman's instructions.

F) Once everyone is back on shore, if you notified the Port San Luis Harbor Patrol before your practice session, radio them on channel 12 and let them know you are back on shore.

Initials

Moving the Canoe from Beach to Site: *Avoid back injuries! Bend your knees and lift the canoe on one end with at least 3 people.*

A) Lift the canoe on the count of 3 ("one, two, three, lift") so that you are all raising the canoe at the same time.

B) Slide dolly between seat 3 and seat 4 so that the canoe is evenly balanced. (Watch your fingers!)

C) Slowly, lower the canoe in to the dolly.

D) Dolly the canoe back to site, *watch out for traffic*!

E) Remove plugs from front & rear air tanks and ama. If water spills out, there is probably a leak, and this must be reported to the Equipment Coordinator or a PKO Board Member.

Emergency Situations

- **Emergency Situations (Some Facts):**

Hypothermia is defined as subnormal body temperature – a lowering of the body core temperature. Unconsciousness can occur when the body core temperature drops from normal (98.6F/37C) to about 86F/30C. Safety experts estimate that half of all drowning victims actually die from the fatal effects of cold water, or hypothermia, and not from water filled lungs. Loss of body heat is one of the greatest hazards to survival when you fall overboard, capsize, or jump into the water. Cold water robs the body of heat 25-30 times faster then air. When you lose enough body heat to make your temperature subnormal, you become hypothermic.

Sudden immersion in cold water cools your skin and outer tissues very quickly. Within 10-15 minutes, your core body temperature (brain, spinal cord, heart and lungs) begins to drop. Your arms and legs become numb and completely useless. You may lose consciousness and drown before your core temperature drops low enough to cause death.

Cold water does not have to be icy…it just has to be colder than you are to set water hypothermia in motion. A person who is wet, improperly dressed and intoxicated can become hypothermic in 70F weather. The rate of body heat loss depends on water temperature, the protective clothing worn, percent body fat and other physical factors, and most importantly, the way you conduct yourself in the water.

Predicted Survival Time (Average Adult in 50F/10C Water):

1. Drown proofing- 1 ½ hours*
2. Swimming slowly- 2 hours
3. Treading water- 2 hours
4. Holding still- 2 ¾ hours
5. H.E.L.P. position- 4 hours**

Initials

*Drown proofing is a warm water survival technique: to conserve energy you relax in the water and allow your head to submerge between breaths. This technique is NOT recommended in cold water, since 50% if heat loss is from the head.

** Heat Escape Lessening Position (H.E.L.P.) hold knees to chest to protect trunk of body from heat loss. Wrap arms around legs and clasp hands together.

An average adult person has a 50/50 chance of surviving a 50 yard swim in 50F water. A 50 year old person in 50F water has a 50/50 chance of surviving for 50 minutes.

Body Hot Spots: Certain areas of your body are “hot spots” that lose large amounts of heat faster than other areas. These “hot spots” need special protection against heat loss to avoid hypothermia. The head and neck are the most critical areas. The sides of the chest where there is little fat or muscle, are major areas of heat loss from the warm chest cavity. The groin region also loses large amounts of heat because major blood vessels are near the surface.

- **Emergency Situations (Surviving Cold Water)**

If you suddenly find yourself in the water don’t panic! Calmly follow the procedure below to increase your survival time.

If you have the VHF Marine Radio, call for help channel 16. Call “May Day – May Day – May Day” and your approximate position and how many people are in the water. The radio is water proof but it won’t float, so hang onto it. Unlike a cell phone, the Coast Guard or Harbor Patrol can home in on your radio signal and locate you (they will tell you to count down).

In the event you use your cellular phone, dial “911” and give the operator your location, who you are and how long you have been in the water. They will call harbor patrol with this information.

Minimize body heat loss. This is the most important thing you should do. Put on a PFD, (if available), and do not remove despite what you may have been told. Instead, button, buckle, zip and tighten collars, cuffs and shoes and hoods. Cover your head if possible. A layer of water trapped inside your clothing will be slightly warmed by your body and help insulate you from the cold eater, slowing your rate of body heat loss.

Devote all your efforts to getting out of the water. Act quickly before you lose full use of your hands and limbs. Climb onto a boat, raft, or anything floating. Right a capsized canoe and climb in. Most canoes will support you even if full of water. If you cannot right a capsized outrigger, climb on top of the hull. The object is to get as much of your self out of the water as possible.

DO NOT ATTEMPT TO SWIM unless it is to reach a nearby boat, another person, or a

Initials

Unnecessary swimming "pumps" out warmed water between your body and your clothing circulating new cold water to take its place. Unnecessary movement of your arms and legs pumps warm blood to your extremities, where it cools quickly, reducing your survival time by as much as 50%!

Whatever you do, **STAY WITH YOUR OUTRIGGER! STAY TOGETHER!!** A group is more likely to be spotted than an individual. To stave off hypothermia *HUDDLE* until help arrives.

If you can't get out of the water try one of the following survival techniques:

1. Heat Escape Lessening Positions (H.E.L.P.) hold knees to chest to protect trunk of body from heat loss. Wrap arms around legs and clasp hands together.
2. Huddle; huddling together with 2 or more people will extend survival time 50% longer than swimming or treading water.
3. Remain as still as possible, however painful. Intense shivering and severe pain are natural body reflexes in cold water, which will not kill you but heat loss will.
4. The urge to urinate should be obeyed, not only will it heat you temporarily, but the decreased volume will give your body less to heat.
5. Eat packets of easily digested food (store inside the marine Signal Kit). This will also help stall severe hypothermia. As the body reacts to cold conditions, you begin to shiver. When you STOP shivering you begin the next stage of hypothermia. The muscle contractions that make shivering possible are fuelled by your energy reserves. HOWEVER, if you have been paddling you probably used most of this up! Replenishing this reserve may help you postpone the more serious stages of hypothermia.
6. Use the disposable warm packs (stored inside the Marine Signal Kit) to stall severe hypothermia. Do not place directly against the skin as they can cause burns. Wrap them and apply to the head, neck, chest and groin areas. Do not apply heat to arms and legs as this forces blood out through the cold extremities and back to the heart, lungs and brain, which will further drop the core temperature. This can cause "after drop" which can be fatal.

- **Emergency Situations (Signaling for Help)**

These instructions are for operating the Marine Signal Kit. Familiarize yourself with the operation of the devices now. There is no time to learn during an emergency!

The signal Kit includes the following:

- 12 gauge Corrosion Resistant Safety Launcher and Bandoleer
- 6 – 12 gauge Red Aerial Flares (Pale Kai added 3 extra red aerial flares)
- Hand-held Red Signal Flares
- 1 – Hand-held Orange Smoke Signal
- Distress Flag

- 1 – Safety Whistle
- Signal Mirror

- 1 - Compass

Initials

The purpose of distress signaling is simple: First to attract attention, and second, to provide a homing signal to guide the responding party to you. Remember, nothing can happen until someone's attention is attracted. The most effective distress signals for attracting attention are aerial flares because they are moving, spectacular and cover a large sighting area. Once help is on the way, hand-held red signal flares, orange smoke signals and orange distress flags serve as beacons for rescuers to identify your position and keep them on course.

- **If you are in a signaling situation:**

A) Conserve your signals until you are reasonably sure of being detected. Wait until you see or hear a vessel or aircraft before using "one time" signals.

B) Stay with the boat if it is safe to do so. A boat is easier to spot than a swimmer.

C) Above all, familiarize yourself with your signals before you leave shore. Time is important in any emergency and should not be spent reading instructions!

- **12 Gauge Aerial Flares:**

A) Loading the 12-gauge Launcher - Break launcher barrel open, insert 12-gauge aerial flare to close launcher.

B) Launching – For most effective use, fire only after sighting a potential rescue vessel. Hold launcher above eye level, point straight up, cock hammer and squeeze trigger.

C) Repeat Procedure - The U.S. Coast Guard recommends you fire two aerial flares, one immediately after the other, so rescuers can confirm the sighting and/or direction of the signal. Therefore, you should repeat steps A and B when the first flare has burned out.

D) 12-Gauge Flare Specifications –
Burn Time – 6 seconds
Altitude- 250 feet
Visibility Range – 12 miles Maximum

- **Hand Held Red Signal Flares and Orange Smoke Signals:**

A) Handling – Grasp bottom of signal flare firmly below the line on label. Point away from face and body. Aim downwind.

B) Expose lighter- Remove black lid on cap, twist cap, remove and save to ignite signal.

C) Igniting - For most effective use, ignite after sighting potential rescue vessel. Strike igniter button on top of signal with abrasive surface or cap. Hold burning signal down wind and away from your body. DO NOT WAVE SIGNAL OVERHEAD.

Initials

FIRST AID FOR HYPOTHERMIA AND COLD WATER DROWNING

Any person pulled from cold water should be treated for hypothermia. Symptoms include intense shivering, loss of coordination, mental confusion, cold & blue (cyanotic) skin, especially around lips or fingers, weak pulse, irregular heartbeat and enlarged pupils. Once shivering stops, core body temperature begins to drop critically.

Your goal in treating hypothermia is to prevent further body cooling. Severe cases call for re-warming by trained medical personnel. In all cases, arrange to have the victim transported to a medical facility immediately.

1. Gently move the victim to warm shelter.
2. Check breathing and heartbeat. In cases of hypothermia you should check very closely for as long as two minutes.
3. Start CPR if necessary.
4. Remove victim's clothing with a minimum of movement, cut them away if necessary.
5. Lay victim in a level face up position with a blanket or other insulation beneath them.
6. Wrap victim in warm blankets, sleeping bag or other warm covering.

If there will be a long delay before victim arrives at a medical facility use the following re-warming techniques:

NOTE: *Learn to do this PROPERLY! Improper warming can KILL!*

1. Apply heating pads or hot water bottles (wrapped in a towel to prevent burns) to the head, neck, chest, and groin.
2. Do not apply heat to arms and legs or give them a hot bath. This forces blood out through the cold extremities and back to the heart, lungs and brain, which will further drop the core temperature. This can cause "after drop" which can be fatal.
3. Do not massage or rub the victim, rough handling may cause cardiac arrest.
4. Apply warmth by direct body-to-body contact. Have someone remove his or her own clothes and lay next to victim skin to skin. Wrap both in blankets (NOTE: Don't do this if the victim is TRULY hypothermic or you may have two victims).

5. If person is alert enough you can give them hot drinks (no caffeine or alcohol). If they are unconscious or in stupor do not give them anything to drink

- **Cold Water Drowning**: _____ Initials

  Some apparent drowning victims may look dead, but may actually still be alive! A phenomenon called the “mammal diving reflex” can be triggered by cold water. This reflex, common to whales, porpoises and seals, shuts off blood circulation to most parts of the body except the heart, lungs and brain and slows the metabolic rate. What little oxygen remains in the blood is circulated where it is needed most. Do not assume that a person who is cyanotic and who has no detectable pulse or breathing is dead. Administer CPR and transport the victim to a medical facility as quickly as possible for specialized re-warming and revival techniques. People have been revived after having been submerged for extended periods, some in excess of 45 minutes! ***So DON’T give up!***

DISCLAIMER

The foregoing is not offered as a legal opinion and the medical information contained herein is NOT intended as a substitute for competent first-aid and emergency training.

AGREED and ACCEPTED

By signing and dating below, I _____ have read and understand the “Pale Kai Outrigger Canoe Club” Safety Policy. I further agree to abide by the safety procedures outlined in this manual each time I paddle in a Pale Kai Outrigger Canoe.

By:_____

Date:_____