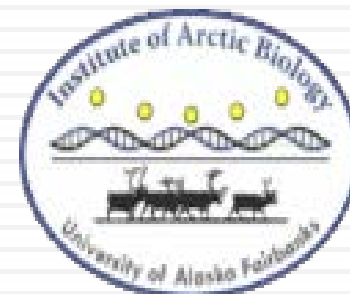


TOOLIK FIELD STATION BOAT SAFETY INFORMATION

University of Alaska Fairbanks
Institute of Arctic Biology



BOAT SAFETY OBJECTIVES



- ❖ Required Safety Equipment
- ❖ Toolik Lake Safety & Local Knowledge
- ❖ General Water Safety
- ❖ Water Craft & Docking
- ❖ Float Plan
- ❖ Boat User's Checklist

TOOLIK LAKE

The boat
safety
information is
only relevant
to Toolik Lake

Disclaimer



REQUIRED SAFETY EQUIPMENT

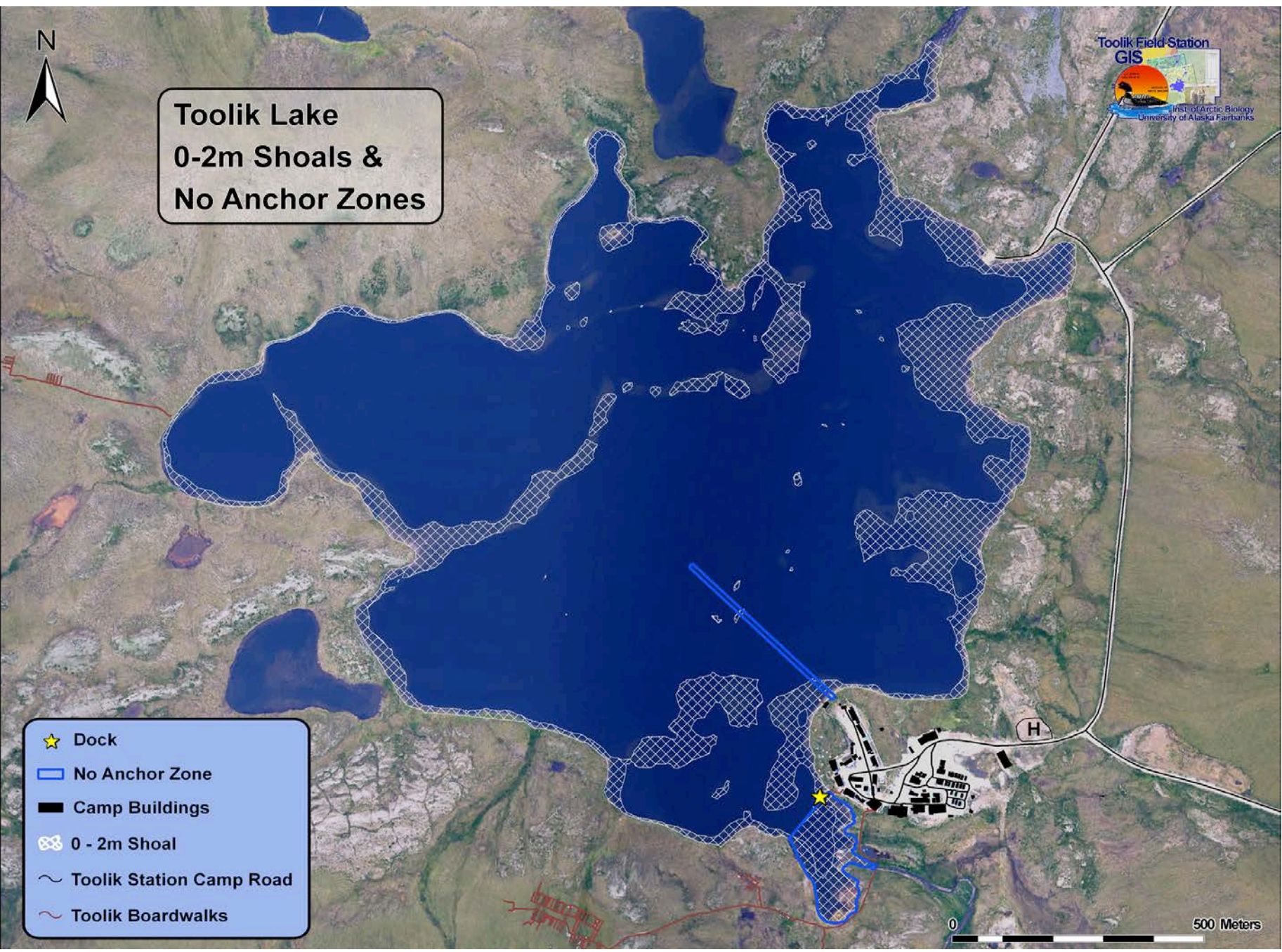
- ❖ Personal Flotation Device (PFD)
- ❖ Throw Cushion
- ❖ Distress Signal (Flare)
- ❖ Sound Producing Device (Horn/Whistle)
- ❖ Bucket
- ❖ Paddles/oar

TOOLIK LAKE SAFEETY & LOCAL KNOWLEDGE

- ❖ Location of Shoals & Equipment to Avoid
- ❖ No anchor zones
- ❖ Toolik Lake map



**Toolik Lake
0-2m Shoals &
No Anchor Zones**



- ★ Dock
- ▭ No Anchor Zone
- ▬ Camp Buildings
- ⊞ 0 - 2m Shoal
- ~ Toolik Station Camp Road
- ~ Toolik Boardwalks

GENERAL WATER SAFETY

- ❖ Cold Water Immersion
- ❖ PFD
- ❖ Sober
- ❖ Swimming Ability
- ❖ Self Rescue
- ❖ Rescue

Cold Water Immersion

COLD WATER IMMERSION

- ❖ The shock of cold water can cause an involuntary gasp reflex that causes victims to inhale water
- ❖ After just a few minutes, the ability to swim or tread water is impaired as the victim loses muscular coordination

Cold Water Immersion: 4 Stages

❖ Stage 1 - **Cold Water Shock**

- When someone falls into cold water their first unconscious response is to take a large breath of air, called the "involuntary gasp reflex."

❖ Stage 2 - **Swim Failure**

- After one has been in cold water for 3-30 minutes, there's a continued inability to hold one's breath, loss of coordination results in cramping and the inability to grab onto anything. Swimming becomes increasingly difficult.

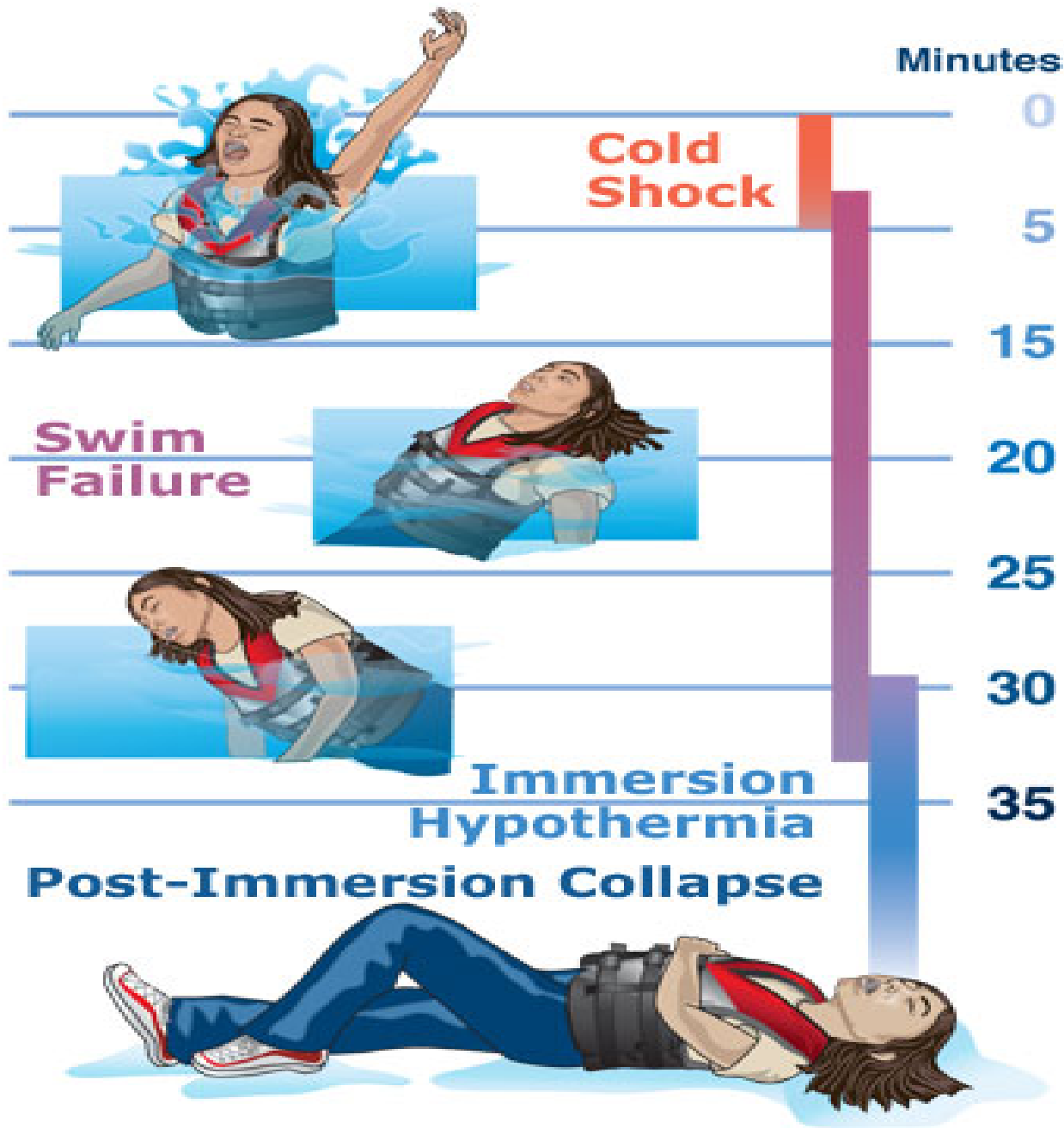
Cold Water Immersion

❖ Stage 3 - **Hypothermia**

- It usually takes between 15-30 minutes to reach. The first signs are uncontrolled shivering and the person becomes disoriented. The body pulls blood away from the extremities toward the organs, the person usually cannot use their arms and legs for self-rescue.

❖ Stage 4 - **Post-Rescue Collapse**

- Blood pressure can drop, inhaled water can damage tissues in the lungs (dry drowning), and heart problems may develop as colder blood from the extremities is released back from the core of the body.



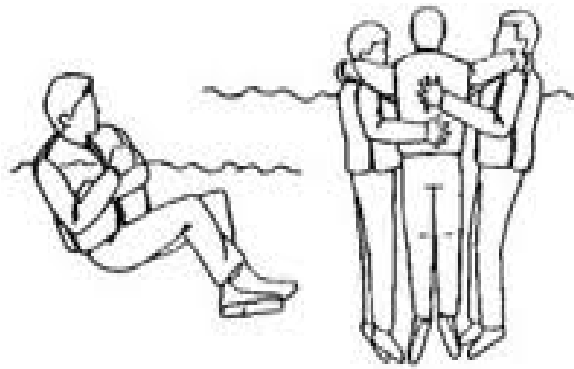
SURVIVING : Cold Water Immersion

- ❖ Always wear a PFD (Personal Floatation Device) or life jacket when boating
- ❖ Keep your head above the water
- ❖ Get into the H.E.L.P. (Heat Escape Lessening Position)
- ❖ Get back into the boat if you can or
- ❖ If you are a confident swimmer and at a reasonable distance from shore, and suspect rescue may not be likely, attempt to swim to shore

Heat Escape Lessening Position (H.E.L.P.)



- ❖ If you are alone, cross your arms tightly against the chest and bring your knees up close to the chest
- ❖ If there are 3 or more people, huddling in a group is the best option. When you are rescued, be sure to replace wet clothing with dry and remain in a warm setting until you are confident that your core body temperature is back to normal



H.E.L.P.
(Heat Escape
Lessening Posture)

HUDDLE
to maintain
body heat

PERSONAL FLOTATION DEVICE



- ❖ A PFD must be worn at all times on Toolik lake
- ❖ PFD's are important. A PFD keeps a person's head above the water and helps prevent the effects of the gasp reflex
- ❖ A PFD makes the wearer more visible.



SOBER

ALL Toolik Lake boaters

MUST

Be Sober

SWIMMING ABILITY

All boaters on Toolik lake should be comfortable swimming in the water.



SELF RESCUE: Overturned Boat

CLOSE TO SHORE

1. Get your head above water
2. Attain situational awareness
3. Swim to shore with boat if possible
4. Return to camp

MIDDLE OF THE LAKE

1. Get your head above water
2. Attain situational awareness
3. Get back on upside down boat and paddle to shore
4. Return to camp

RESCUE

CANOE SWIMMER

1. Guide swimmer to bow or stern of the boat
2. Once the swimmer is calm, bring swimmer to the side and pull back into the boat
3. If close to shore, swimmer holds on and paddle him/her to the shore

SKIFF SWIMMER

1. Guide swimmer to the stern of the boat and then help pull the swimmer back into the boat

WATER CRAFT & DOCKING

- ❖ How to tie up to dock
- ❖ How check fuel
- ❖ How stow & clean boat

FLOAT PLAN

- ❖ Date/Time of departure
- ❖ Destination
- ❖ Number of persons on board
- ❖ Expected time of return

BOAT USER'S CHECKLIST

- ❖ All Toolik lake boaters are required to fill out the Boat User's Checklist prior to launch.
- ❖ Return the completed form to the Safety Coordinator prior to launch

Questions?

Have Fun & Enjoy Toolik Lake