

TO: Shyam Pandey

FROM: [REDACTED]

DATE: June 16, 2021

SUBJECT: Project 2

This memo will outline the project 2 documents, research, and unifying theme for Trevor and Ryan's project 2.

Three documents were created around the central theme of watersports. Both of us grew up around watersports, so it was a natural topic for us to center around. Even with this, the primary research was made easier because both of us had recently had events happen or were planning to happen that created the research. The first document is an instructional document on how to stand up paddle board, the second document is a technical description of a jet ski, and the last is a protocol document for what lifeguards should do when a kayak capsizes under their watch.

Instructional Document: This is the document that Ryan had the most prior knowledge to. The goal of this document is to clearly explain to an audience of beginners how to stand-up paddle board. The overall theme is a typical instruction document that goes through all of the steps that need to be taken to be successful while also breaking the document down into clear sections. Ryan took photographs from while he was paddle boarding during this project to use as primary research and combined it with a few other secondary sources to ensure document cohesion and that all of the processes presented were correct. The biggest alterations that had to occur following the feedback was in the overall design. The original design used a very low quality picture as a background for the entire document. This was removed for the use of a higher quality image. To create a bit more clearer contrast and sections, a white shape, that somewhat resembled a paddleboard, was used to hold the body text and images. This really helped bring the document together as it made it not only easier to read, but much more pleasing to the eye. Lastly, the document distribution, alignment, and spacing were adjusted to finalize the design.

Technical Description: This document was the one that underwent the biggest change from the first rough draft to the final document. The original idea was to create a specification sheet for a standard Jet-Ski, but this proved very hard as there was little information that would work and provide enough content for the goal of the project. The original way that we formatted it also more closely resembled a technical description than a specification sheet. In the end the audience and general format were altered slightly to end up producing a technical description of a jet-ski. The audience was aimed at jet-ski users, possible jet-ski users, or anyone curious about how a jet-ski works. From the original draft, any mentions of the reader were removed as they do not have a place in a technical description. The design is aimed at being rather plain as it is more of a technical document than a personal use document. For this reason, the large part of the document relies on white space with only water-themed borders at the top and bottom of each page. There wasn't much to change design wise following the rough draft other than some basic ordering, alignment, and removing text from the footer. The research

for this was completely secondary as neither of us had access to any sources that would provide sufficient resources to support this document in a primary resource format.

Protocol: The final document is a protocol aimed at lifeguards as a brief summary on what to do if a kayak capsizes under their guard. It is formatted to feature both proactive, active, and reactive needs. The first page features what to do to be proactive to ensure no one has capsized already and be confident in this. The second page features the reactive things that a lifeguard will have to note. In a separated red, triangular section on each page is the active protocol. This namely is the steps a lifeguard should be telling a rider so that they can properly remount a kayak should they capsize. Following the revisions, it was primarily made just a bit more clear in certain areas of how the document should be used – making sure that the intended audience understood it was for them. Based on feedback, a small section reminding a lifeguard how to perform CPR was also included. The design was straight forward – we wanted it to be clearly identifiable as something for lifeguard. This explains the use of the red accent color and the white cross in either corner. As this document is something for a work place, flashy designs were used so the shapes are generic and clean. The document is grouped to try and create clarity on the different things that should be done and are each indicated by a different image that reflects the section purpose. The primary changes made following the rough draft were focused on alignment and spacing to make sure the document is consistent. The largest amount of this research came from Trevor's first hand experience from a few weeks back when he capsized in a kayak. This was the inspiration for this document as my accounts provided excellent primary research.

We hope this memo entails all that you wish and provides a sufficient explanation about the decisions made over the course of the project. On the following page(s) will be all of the secondary cited sources from the 3 documents.

Regards,

Team 2



Attachments:

Citations

Paddle Boarding Instructional Document

Jet-Ski Technical Description

Kayak Capsizing Protocol

References:

Instructional Document

Clarkin, A. (n.d.). *Stand Up Paddle Boarding (SUP) Basics*. REI Expert Advice.
<https://www.rei.com/learn/expert-advice/paddleboarding.html>.

Regan, J. (n.d.). *How to Paddle Board: Beginner's Guide to SUP*. GILI Sports.
<https://www.gilisports.com/blogs/sup-expert-advice/how-to-paddle-board-the-beginners-guide-to-sup-basics>.

Technical Description

Campfire Collective. (2019, August 22). *The Basic Parts of a Boat and Personal Watercraft*. Campfire Collective. <https://www.thecampfirecollective.com/blog/the-basic-parts-of-a-boat-and-personal-watercraft/>.

Jet Ski Horsepower Specs vs. Sea-Doo vs. WaveRunner 2021. JetDrift. (2021, January 10).
<https://www.jetdrift.com/jet-ski-horsepower/#:~:text=Stock%20jet%20skis%20have%2060,models%20offer%20230%2D310%20HP>.

Kalkomey Enterprises. (n.d.). *Parts of a PWC From a Side View and Operator's View*. boat-ed.
https://www.boat-ed.com/indiana/studyGuide/Parts-of-a-PWC-From-a-Side-View-and-Operator-s-View/10101602_35126/.

Woodford, C. (2020, August 25). *How do Jet Skis work?* Explain that Stuff.
<https://www.explainthatstuff.com/jetskiseadoo.html>.

Protocol

American Red Cross. (n.d.). *CPR Steps: Perform CPR*. Red Cross.
<https://www.redcross.org/take-a-class/cpr/performing-cpr/cpr-steps>.

What To Do If Your Kayak Capsizes. Best Marine & Outdoors. (2020, August 3).
<https://bestmarineandoutdoors.com/blogs/news/what-to-do-if-your-kayak-capsizes>.

How to Stand Up Paddle Board

Safety

1. Always wear a personal flotation device (life jacket) when in the water because you will be in deep areas once off shore.
2. Make sure to wear the tether attached to the board to easily retrieve it if you fall off.



Getting Ready

3. Find the right size paddle by reaching to the top of the handle and bending your wrist over it while extending your arm to the sky (paddle should be taller than yourself).
4. Carry board to knee deep water, so the fin does not scrape the ground of the body of water and place it down.
5. Get on middle of the board with your knees and then paddle out to deeper water to stand up.

Standing Up

6. When ready, put hands and paddle in front of you while always keeping contact with your board.
7. Next, replace where your knees were with your feet one at a time by pushing upwards.
8. Grab your paddle when you are about to fully extend upwards and keep your back straight to make it the easiest to balance.



Paddling

9. If you are paddling on left side put your right hand on the handle and your other a few feet down. If you are paddling on right side put your left hand on the handle and your other a few feet down.
10. Make sure to have blade facing away from you for stronger strokes in the water.

Fall Off?

11. Grab onto opposite side of board and pull yourself out of water by trying to jump out of it.
12. Repeat steps 5 - 10 to have fun.



Knowing your Personal Watercraft

Technical Description of a Jet-Ski

The motors are typically between 60 - 180 horsepower. Horsepower calculated by finding power to raise 550 pounds a foot in the air in 1 second.



Jet intake area, located near the drive shaft and steering nozzle, sucks in water and then passes water through a high-speed impeller. This will make the steering nozzle thrust the jet-ski forward.

Engine cutoff switch will occur if you fell off the boat since the key and switch should be attached while you are on the jet-ski at all times. This will help you be able to get to jet-ski since the engine will not be on anymore if you fall off.



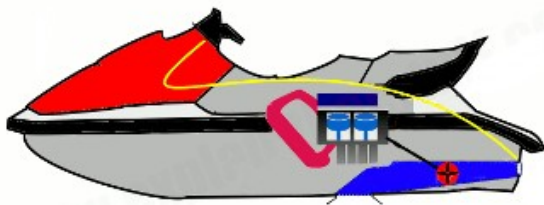
Most jet-skies can go anywhere from 40 MPH to 70 MPH. It may never reach 70 MPH, but it is possible. On average most jet-skies will go around 50 MPH, which is still fast.

Jet-skies use gasoline engines that will often need refueling before or after use. Most Jet-skies use regular gasoline, like a car uses, that can be bought at a gas station.



Jet-skies use impellers, like the one seen to the left. The impeller is the primary driver of the jet-ski, as the three blades force the water pumped in, out at a much higher speed in the opposite direction of motion. The impeller is within a pipe that runs from the water intake to the nozzle at the rear. They spin very rapidly so it is important to keep the impeller clear at all times and clean it out if anything gets caught inside. Make sure to do this with the engine off.

When the water is propelled from the impeller toward the nozzle it is moving with greater speed than it entered the intake. The nozzle (seen to the right) then speeds up the water on exit even more, propelling the jet-ski.



Jet-ski steering is done by a fairly simple mechanism. The rider turns the handle bars a certain direction which pulls a cord (seen in yellow) to change the direction of the propelled water. This makes turning at low speeds difficult as it relies on water speed to cause a change in direction.

Kayak Capsizing Protocol

For Lifeguards



What to Watch For:

- Kayakers who are struggling
- Currents that are visually faster
- Boats without riders
- Riders without boats
- Capsized vessels



What to Listen For:

- Calls for help
- Screaming
- Noticeably Loud Currents
- Rambunctious riders who may not be paying close attention or may be intoxicated
- Water splashing

Remounting a Sit-On Kayak:

What to tell Riders to do

1. In the middle of the side, grab the near side with one hand reaching across to grip the far side with the other hand.
2. Slowly pull the far side of the boat towards you to roll it back to the proper side.
3. Again, from the middle of the side, boost yourself on top of the boat so you are lying across the seat.
4. Ensure you are stable on the vessel and twist yourself until you are centered on the seat again.





How to Help:

- If a rider is drowning or appears unconscious, **IMMEDIATELY GET THEM OUT OF THE WATER AND PERFORM CPR IF NEEDED**
- If a rider cannot get back on the boat themselves, help them get their boat back to the water edge so they can remount safely
- If a rider tells you they do not want help, you **CANNOT** help them
- If a kayak rider is approaching dangerous current while dismounted but is refusing assistance, advise them to swim to the river's edge with or without the boat for safety
- Make sure the rider knows that the boat is less important, if they lose it while trying to hold on in strong current it is okay



Remember! CPR:

- Push Hard, Push Fast
- Pump to the beat of "Staying Alive" or "Crazy in Love"
- Perform 2 rescue breaths and continue compressions

Remounting a Sit-In Kayak:

What to tell Riders to do

1. In the middle of the side, grab the near side with one hand reaching across to grip the far side with the other hand.
2. Slowly pull the far side of the boat towards you to roll it back to the proper side.
3. From the rear of the kayak, boost yourself on top of the boat while kicking aggressively.
4. Once you are on top of the kayak, ensure you are stable on the vessel and twist yourself until you are in a seated position with legs hanging off.
5. Slowly scoot forward until seated in the kayak.

