Hi! I’m Jesse Schomberg and you’re listening to the Sea Grant Files.

It is National Safe Boating Week and Minnesota Sea Grant wants you to have a safe and happy summer … so if you have an opportunity to ply the waters of our water-rich region … please wear your life vest.

U.S. Coast Guard statistics show that drowning was the reported cause of death in four out of every five recreational boating fatalities in 2017. The vast majority of those who drowned were not wearing life jackets.

Modern life jackets are much more comfortable, lightweight and stylish than the bulky orange ones of yore. Innovative options, such as inflatable life jackets, allow mobility, flexibility and better venting in warm weather.

I’m going to extend National Safe Boating Week’s safety messages a bit. Certainly, it is a good idea to wear a lifejacket when you are boating. Having a life jacket on board for every person on a boat is required. Beyond that, water safety includes knowing how to swim. It also includes knowing how to escape a rip current. It includes understanding the drowning force of swollen rivers and the signs of hypothermia.

My colleagues at Minnesota Sea Grant and I really want you to continue to revel in all things aquatic. By all means enjoy the water. Just know yourself, the limits of those you love and your environment.

I’m heading over to the Sigurd Olson Environmental Institute at Northland College on Friday to help co-lead a workshop on dangerous currents, which can form along beaches, around islands, next to piers, and include rip currents. According to the National Weather Service, dangerous currents kill an average of 12 people on the Great Lakes each year.

The workshop is part of a two-year project involving researchers from Wisconsin and Minnesota who are collaborating with Sea Grant educators like me to generate better public awareness about dangerous currents along both the Minnesota and
Wisconsin shores of Lake Superior. The team is characterizing dangerous currents and the mechanisms generating them. The team is also developing a system to predict immediate and future dangerous currents. We expect this new information will be available online to give beachgoers, water sports enthusiasts and communities easy access to dangerous current watches, warnings and advisories.

In a similar vein, Wisconsin Sea Grant just announced the world’s first traffic-lights-like warning system for beachgoers that will indicate the presence, or absence, of dangerous waves and rip currents on North Beach on Lake Michigan in Port Washington. Beachgoers wanting more details can check a kiosk for current temperature, wind and water conditions.

Rip currents form when waves break over a sandbar; the water trapped between the sandbar and beach can then “rip” through the sandbar, and as this built-up water rushes out, it creates a strong narrow current that carries everything in it out into deeper water. Swimming toward shore while caught in a rip current is like swimming up a fast-moving river! Expect fatigue and no progress toward safety.

Here’s what Lifeguard Ed has to say about the situation:

41 seconds PSA--- https://www.youtube.com/watch?v=ytyLMkV2iu0

To echo Ed, the best way to escape a rip current is to swim parallel to shore and then angle back to safety, avoiding the path of the current. Another strategy is to float on your back until the current dissipates and then swim diagonally to shore.

In addition to helping people avoid drownings from boating accidents and rip currents, the National Oceanic and Atmospheric Administration, who oversee the National Weather Service, Sea Grant and many other programs that support America’s prosperity, is also invested in understanding meteotsunamis, small, weather-driven tsunamis caused by changes in air pressure created by fast-moving severe thunderstorms, squalls or other storm fronts. Meteotsunamis occur all over the world — in fact, if you got to the NOAA webpage “What is a meteotsunami?” you’ll be greeted by a picture of an ominous cloud hovering over Lake Superior. The Great Lakes experience about 106 meteotsunamis per year* and NOAA scientists at the Great Lakes Environmental Research Laboratory are working with partners on developing a meteotsunami warning system for the Great Lakes.

Destructive Great Lakes meteotsunamis include:
● Lake Michigan -- 1998 -- a meteotsunami capsized a tug boat.
• Lake Superior -- 2014 -- a meteotsunamis interrupted shipping operations and prompted residents’ evacuations.
• Lake Erie – 2015 -- a meteotsunami swept 3 swimmers a kilometer offshore.

Stay safe this summer all you water lovers. If you are going to Duluth’s Park Point Beach, don’t forget to check out Park-Point-Beach-dot-O-R-G for the latest weather and water conditions. Hope to see you at the beach or sporting a snazzy life vest if you are out on the water!

This episode of the Sea Grant Files was produced by Sharon Moen, Chris Harwood, KUMD and, me, Jesse Schomberg. To listen to other episodes of the Sea Grant Files, visit Minnesota Sea Grant at sea-grant-dot-u-m-n-dot-e-d-u. Thanks for listening!

*(Bechle et. al., 2016).*