

# Coastbusters

The Cross Currents Newsletter for Mid-Atlantic Paddlers

September 2019

## 500 Miles on Alaska's Inside Passage

*Whitney Sanford*



In June-July 2019, Anthony Joyce, David Rochelle, Dawn Stewart, and I kayaked over 500 miles along Alaska's Inside Passage, from Skagway, Alaska to Prince Rupert, BC. The Inside Passage is part of

Alaska's Marine Highway System, bringing people, goods, and services to largely roadless areas. Our companions were cruise ships, ferries, and fishing boats, along with whales, seals, and sea lions. We used three NDKs and a Tiderace.



*Floating on Glass. Photo: Whitney Sanford*

We prepared for the worst, expecting—and maybe hoping for—big conditions and big seas. Surprisingly, we had mostly glassy seas and made our crossing in windless afternoons. The flat seas gave us plenty of time for whale-watching.



*Blue Ice. Photo: Dawn Stewart*

Bergie bits floated on the water, moving back and forth across bays with the tides. From afar, they look tiny, but up close is another story. Their blue tinge is haunting.



*Muddy Flats. Photo: Whitney Sanford*

Alaska's rich muddy tidal flats held so much life, including starfish, kelp, and many varieties of mollusks. Fun to look at but dangerous to walk on. Falling on slippery rocks was one of the greatest hazards of the trip. Fortunately, no one slipped.



*Yard Sale. Photo: Whitney Sanford*

After days of rain, a sunny evening was a treat. Alaska's evening sun was surprisingly strong, too hot for sleeping sometimes.



*Petersburg Fishery. Photo: Whitney Sanford*

Most of the waters in the Inside Passage are worked by commercial fisherman. Few cruise ships visit the small city of Petersburg, so we saw a less-touristy part of Alaska. This seafood will be immediately frozen, packed, and sent to Asia or the lower 48.



*Sunset Beach. Photo: Whitney Sanford*

A rare sunset for me. In bed by 7 pm most nights. We rose at 4 am, aiming to be on the water by 6 am to avoid the afternoon winds.



*Taking the boats for a walk. Photo: Whitney Sanford.*

Finding a channel to cross Dry Flats was a challenge. We raced the ebbing tide to make it across just in time. It was that, or sit there through another tidal cycle. No thanks.



*Finding a campsite. Photo: Whitney Sanford*

Every day we checked the kelp line from the previous tide. Alaska's large tidal range made finding campsites a challenge, especially in spring tides. We never guessed wrong, but we had one very close night.



*Reflections. Photo: Whitney Sanford*

Spending so many days in such beauty was a luxury. How often do we have time to think and live without distractions?



*Look left. Look right. Look up. Photo: Whitney Sanford*

Alaska's seas are their highways, and marine traffic abounds. We dodged ferries, cruise ships, and seaplanes. I normally don't check the skies when crossing a channel.



*Totem Poles in Ketchikan. Photo: Whitney Sanford*

In Prince Rupert, we unpacked our boats a final time. A bittersweet moment—our journey complete. We still had SO Much gear, even after eating our food.



*Piles of Ikea bags ready to go home. Photo: Whitney Sanford*

Letters to the Editor

Hi Rick - Another great issue. I particularly enjoyed Nate Hanson’s essay: “Why am I doing this?” I totally related to Nate’s observation that the excitement of learning and practicing skills tends to wane over time. I have challenged myself to find new kayaking goals and came up with the following:

- 1. **Eco Paddling** - Where should I paddle today that will allow me to remove floating debris. How can I help the environment today?
- 2. **Newbie Joy** - Remember the thrill (and nerves) paddling the first time? Invite a friend or colleague who has never paddled and share their excitement.
- 3. **Aquatic Scavenger Hunt** - Find a new area and search for something. A manatee sighting, a rare orchid or a power boater that is not intoxicated (Just kidding. There must be one. LOL). Take a picture and share with the local kayaking community.
- 4. **Skill enhancement** - Paddle with someone who has a skill you want to learn or refine. Lunch is on you. Ask them to coach you along the way.
- 5. **Cordon Bleu** - Spoil yourself. Where is the coolest place to paddle and have a great meal? Can you paddle to a restaurant? Or will you paddle to your favorite spot with a fabulous picnic basket of goodies?
- 6. **Pay it forward** - Do you like working with people? Get engaged with blind or otherwise handicapped paddler. I did and it was immensely rewarding. I learned that kayaking with a blind paddler is as close to driving as they get and they love the feeling of freedom.

- Harry Tobin  
St. Petersburg, FL

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Oregon Coast Cave Photo: Bill Vonnegut

## She Didn't Die

*Thomas Suppan*

Every teacher or instructor I've ever talked with has at some point wondered if they were making a difference. Reading about the Secret Service Agent who died recently in a (preventable) kayak incident can magnify that feeling for kayaking instructors. As an instructor who has benefitted enormously from those who have taught me, I want to tell you about the 25-year-old woman whom you won't read about in the papers because she didn't die this week.

Having recently received my ACA level 3 instructor certification, I took my first group of L3 students to the area around Kiptopeke State Park on the Virginia Eastern Shore. I know this venue well and it's perfect for what we wanted to do. It offers access to calmer water on the Chesapeake Bay side and rougher water on the Atlantic side. Weather for the weekend was perfect: air was in the low 80's, with water temps in the mid-70's. Sunshine mixed with some clouds to paint a picture-perfect setting.

We spent a couple of days honing skills on the bay side. Then on the fourth day, we progressed to the strong currents and standing waves off the southern tip of Smith Island on the ocean side. We timed our sessions to take advantage of the rise and fall of the tidal flows. We played all morning, working on rescues and rolls in conditions with waves up to 1 ½ feet. The two students I had with me - Mary and Woody - were very adept and comfortable with both.

After a relaxed lunch, we headed out to find that the slacking of the tide meant that fewer waves were to be found, and that they were much further away from shore. Feeling confident, we pursued them, but soon they too ran out of steam and dropped to less than a foot high. We stopped to assess whether to call it a day, and decided there wasn't much more to be gained by staying out.

Just as we were about to head back to the put-in, I heard what sounded like a cry for help. I thought I was hearing things. Then the call came again. It seemed to be coming from even further out than we were. Squinting, we saw a speck on the water in the distance (which GPS later showed to be 1/4 mile away). I said "someone is in trouble" and headed off with my two students close behind.

As we got closer we saw that it was a person in the water, with no boat of any kind in sight! It was a woman; one without a PFD. I slowed and started talking to her as I approached. She said that her kayak had sunk. She was calm, and clearly in control of herself, so I got close enough for her to grab my bow toggle. About that time, my students arrived, and transitioned to being my rescue support team. Mary offered to help stabilize my boat while our swimmer climbed on my back deck.

Our guest was Patti (not her real name). Much to my surprise, she recognized me before I recognized her. She was the Wildlife Refuge Park Ranger who was at the gate when I had gone to the refuge a couple of days prior. I told her at the time that I was there to teach some classes. She expressed interest in future classes, and I told her about training opportunities in the area.

### How Did This Happen?

During our earlier conversation I had told her that the area around the southern tip of Smith Island was really beautiful, but that the currents were hazardous and really required skills to attempt. Apparently, she was so entranced by the first part that she forgot about the second.

This morning she had borrowed her boss's kayak and headed out. She had no PFD, no whistle, and

no training. She had paddled just a couple of times previously, all in flat water. Equipped only with the confidence of youth, she had set out, paddling around Smith Island. Her recreational kayak (with no hatches or floatation) had taken a wave, got swamped, and just gone down. She had been in the water for almost an hour when we spotted her.

I had recently practiced swimmer rescues at a local training event, so I was able to tell Patti how to get into a stable position on my back deck. I had two capable paddlers with me who I knew could step up if there was a problem. To get Patti to land as quickly as possible, I headed directly to the shore on Smith Island. I considered calling for help, but the situation was under control, and honestly I wanted to spare Patti further embarrassment. While underway, my fellow rescuers kept watch on Patti and talked with her to make sure she was kept calm and alert.

It turned out that Patti was over ½ a mile from shore when we picked her up. And the ebbing current was carrying her further out Smith's Island inlet!



Back deck swimmer carry. Photo: Woody Woodside

Fighting the current, it was a bit of work to bring her in. Woody and Mary landed while I approached the shore, and then I had Patti step off when the water was mid-thigh deep, so she wouldn't get bounced around by the smallish shore break. Woody walked her in to land. Patti wasn't hypothermic, as the water temps were moderate, but she was chilled after her hour-plus swim. To get her warmed up, we gave her a jacket, some water and food. Once we knew she was OK, we passed her off to some picnickers we had spotted during lunch. They had a power boat and were happy to transport Patti back to the mainland.

Despite our leisurely return, Patti was waiting for us when we finally paddled in to the launch at Wise Point. She wanted to return the jacket Mary had loaned her. She just kept thanking us for rescuing her.

#### Take Aways

The lessons from this are so basic that I'm reluctant to list them, but:

Lesson 1: Recreational kayaks are only for flat water, and even then, they should have floatation added.

Lesson 2: Always wear your PFD. If we hadn't been in the right place at the right time, Patti would not have made it.

Lesson 3: Signaling devices: have some. It was a freak occurrence that I heard Patti over the waves. You can't count on freak occurrences.

Lesson 4: Don't lend your kayak to someone who isn't qualified to use it.

Lesson 5: All those practice drills you do for things you think won't ever happen are worth the effort.

Lesson 6: That rescue kit you think you will never use and sometimes leave behind because of the weight is worth carrying (extra jacket, extra water, and quick-energy food).

We could have done something differently: During our later discussion, I found out that Woody had a tow belt. I had one, but I didn't want to disrupt Patti once she got in position on my back deck. Had I known about Woody's, his tow assist would have brought us to land (and safety for Patti) more quickly. Woody had offered to help, but I was too focused on the rescue to grasp what he was offering. Even in a rescue situation, try to avoid tunnel vision.

But overall, the way we handled the incident worked well. We were well-trained and were coming off a few days of intensive skills practice. We used all our assets: the students played a strong supporting role in the rescue. We remained calm and helped keep Patti calm. In addition, we were redundantly equipped to handle the situation. As a result, we never had to place ourselves into any hazardous situation while trying to save someone else's life. We did pretty well and Patti didn't die this week. That's a win-win!



## Delmarva Paddler's Retreat: A Paddling Event, A Community

*Mike Hamilton*

Among the many things that I find so valuable about kayaking are the friendships and the sense of community that accompanies it. Humans, social animals by nature, have survived in part by coming together to share, learn, seek security, and find love. Sure, I really enjoy (and need) a quiet solo paddle amongst the birds, marshes and a misty sunrise, but kayaking is usually better for me when it is a shared experience.

Which brings me to the Delmarva Paddler's Retreat. Each October, around 100 paddlers assemble to share their knowledge of kayaking and spend a long weekend together in community and friendship. Friends old and new are welcomed, and I always leave with fond memories, re-energized motivation, and a warm and fuzzy feeling that lasts for weeks. I believe that this outcome can be largely attributed to the full immersion experience; one doesn't just take paddling classes, one becomes an integral part of the event and a member of a very special community.

It is also about celebrating the origins of modern kayaking. *Delmarva* is one of several special non-profit events in the United States sanctioned by Qajaq USA, the American chapter of Qaannat Kattuffiat (The Greenland Qajaqing Club). In the mid 1980's, a group of Greenland Inuit realized that if they did not act quickly, they would lose important knowledge about hunting by qajaq (Inuit term for the skin-on-frame design kayak used for hunting). They recognized that qajaqing was an important part of their cultural identity, so they gathered together the last living and mostly elderly seal hunters and qajaq builders to glean as much knowledge as possible before they died. Qajaq USA's sole mission is to support the Greenlanders

in their mission to accurately preserve and disseminate qajaqing knowledge and to recognize the invaluable contribution that Greenlanders have made to modern kayaking. Giving credit where credit is due! Fulfilling our pledge to support the Greenlanders' mission, Delmarva Paddler's Retreat first began over 30 years ago and is the first all-Greenland-style, all-volunteer event in the United States.

The symposium takes place at Camp Arrowhead on the western shore of Rehoboth Bay in Delaware. It's a scenic woodland camp with a sandy beach, bunk houses, a dining hall, lodge, swimming pools, and a screened-in workspace. There are shady trails and no high rises, public boat ramps, or gas stations in sight!

### Courses and Activities

The on-water offerings include introductory and advanced strokes classes, edging and bracing, rescues, towing, harpoon throwing, and specialty classes like kayak ballet and the combat roll challenge. No Qajaq USA event would be complete



90 Minute kayak building competition. Photo: Chev Dixon

without rolling, so we pair mentors with individuals, one on one, at the beach to work on specific rolls (there are 35 competition rolls). If the wind is too high, some classes are held in the swimming pools. On-land offerings include workshops like qajaq building, paddle carving, making spray skirts, sea socks, float bags and neoprene mittens. Rope gymnastics, used by Greenlanders to stay fit during the long winter months, is taught in the dining hall and at the beach. Throughout the day, paddlers can try out the qajaq fleet. There are over a dozen skin on frame qajaqs available, sized to fit a variety of body forms. Paddles, harpoons, akuilisaks (summer spray skirts) and tuiliks (one-piece anorak/spray skirts) are also available for use. After classes it is time for some fun on the water. We might have kayak races, or a 90-minute kayak build competition, compete with harpoons, or just goof off on the beach.

Evenings are special. Several things happen that help Delmarva stand apart from many other symposia. First, on Friday evening there is a presentation by a featured special guest. This year, paddler and author Susan Conrad will be joining us to recount her 1,200 mile journey through the Inside Passage (from Washington State, past Canada to Alaska). Paddling mostly solo, Susan faced logistical, environmental, physical and psychological challenges while navigating this pristine, wild and beautiful coastline. And yes... there were bears.

Saturday evening features a live and silent auction; the proceeds are used to keep costs down and



*Umiak maiden voyage. Photo: Chev Dixon*

provide funding to bring in special guests. In years past, we have brought in paddlers from Greenland, Japan, Canada, Denmark and Norway to share their experiences and build community worldwide. This year brings the return of Anders Thygesen and Jannie Heegaard from Denmark and Norway. They will lead the week-long qajaq building class that immediately precedes the main event.

The Delmarva Paddler's Retreat is remarkable because everyone contributes. So many people have something to share above and beyond the usual paddling classes. Additionally, all the mentors are volunteer. This is more than offering paddle classes. This is something very special and it's right here in the Mid-Atlantic Area. Every October. Come and join our community. For more information, see: [www.delmarvapaddlersretreat.org](http://www.delmarvapaddlersretreat.org)



*Delmarva sunrise. Photo: Robin Deykes*



*Daily beach scene. Photo: Chev Dixon*

**Photos of the Month**



**On the Way Down**

*Photo: Mark Sargeable*

**Photos of the Month**



On The Way Up

*Photo: Joey Schott*

**Photos of the Month**



**Stormy Sunset**

*Photo: Tim Cole*

## Smith Island: West of Gaul

*Ron Kleiman*

I spent the first weekend in August with Cross Currents and 11 paddling buddies exploring a small island off the Maryland coast, in the middle of the Chesapeake Bay, just north of the Virginia border. Smith Island has a population of 276 spread across three little towns. The main occupation is crabbing. We arrived, with our boats, by ferry, on Friday morning. We checked into our two rental houses in the community of Tylerton, dumped our stuff, had lunch and went for a four-hour paddle,

circumnavigating the northern portion of the island. Our route took past the other two communities on Smith: Rhodes Point and Ewell.

The weather called for scattered thunder showers for all three days of our trip, none of which materialized. I had decided to leave my camera home rather than risk damage to the equipment, a decision I came to regret.



*Smith's endless sea and sky. Photo: Heather Heller*

Saturday morning we were on the water before 10. Our paddle plan was to check out a pelican rookery (nesting site) on the west side of South Point, the southernmost neck of the island which is actually in Virginia. We were totally unprepared for the thousands of birds we encountered: cormorants and seagulls, but mostly pelicans. They lined the beaches, jammed side-by-side and three or four

deep, for about half mile of shoreline.

Hidden in the tall marsh grass we picked out the heads of some larger chicks, their grey fuzzy heads indifferent to our presence. The parents were somewhat less trusting - several thousand wings, magnificently, taking flight simultaneously as we came within 50 yards.



*South Pt. Pelicans. Photo: Rick Wiebush*

The older chicks floating on the water had not yet acquired a fear of people and were content, in their curiosity, to paddle within a foot or two of our boats.



*Close friends. Photo: Heather Heller*

Up close pelicans are not particularly pretty birds. In fact, looking closely, their tiny black eyes and long beaks bear a striking resemblance to Pterodactyls, though, thankfully, somewhat smaller. From a distance they become creatures of grace and beauty as they glide, effortlessly, inches above the water in their search for lunch.

Cormorants are different and fun to watch. They are the only sea bird lacking waterproof feathers, which is why they are often seen standing on the beach, wings extended, in an awkward pose, drying out in the sun. In order to attain flight while floating on the waves, their wings quickly slap the water four or five times, making a distinctive thwack, thwack, thwack, thwack. When several thousand pairs of wings all attempt to take off at once they produce a sound and volume not soon to be forgotten.

Like the pelican, all awkwardness disappears as they dive from on high, wings only slightly extended, close to their bodies, giving a powerful, almost supersonic appearance. Then they impact the water, staying submerged for almost a minute, finally breaking the surface several yards away, with dinner, still flopping, firmly gripped in their beaks.

We broke for lunch and a swim on a section of beach recently vacated by some of the birds who fled our approach. We kept our distance from the remaining birds so as not to disturb the pouch (flock) of pelicans or the gulp (flock) of cormorants. We were all old enough to have seen Hitchcock's "Birds", and being vastly outnumbered, were taking no chances.

Just to add to the afternoon, we spotted several osprey and eagles during the 4.5 mile paddle back to Tylerton.

After arriving back at our house, we showered, had dinner, and attempted to watch a little TV before sleep. Watching the 13" TV was challenging. First we had to realize that it wasn't a computer screen we were seeing, then we had to figure out how the antique worked. Thirty minutes later we were watching an episode of "Shark Week". We joked that the Smith Island segment may have aired after we had retired for the evening.



*Photo: Barbara Southworth*

Sunday morning, we pack up and leave our luggage and left over food (in coolers!) on the pier for the 3:00 ferry back to the mainland. Armed with charts, we decide to explore an area that none of us is familiar with. It is a little island just north of Ewell. We see what looks like an air strip, a few houses and then a sign which declares the whole island is for sale. One of our paddlers is familiar with this.

The island includes an elephant (he says), and a big herd of goats (he adds). I ask: "is it a working elephant?" We round a corner and come face-to-face with a herd of 12 or 15 goats! This gives credibility to the existence of the elephant, for which we all start scanning the bushes and trees.

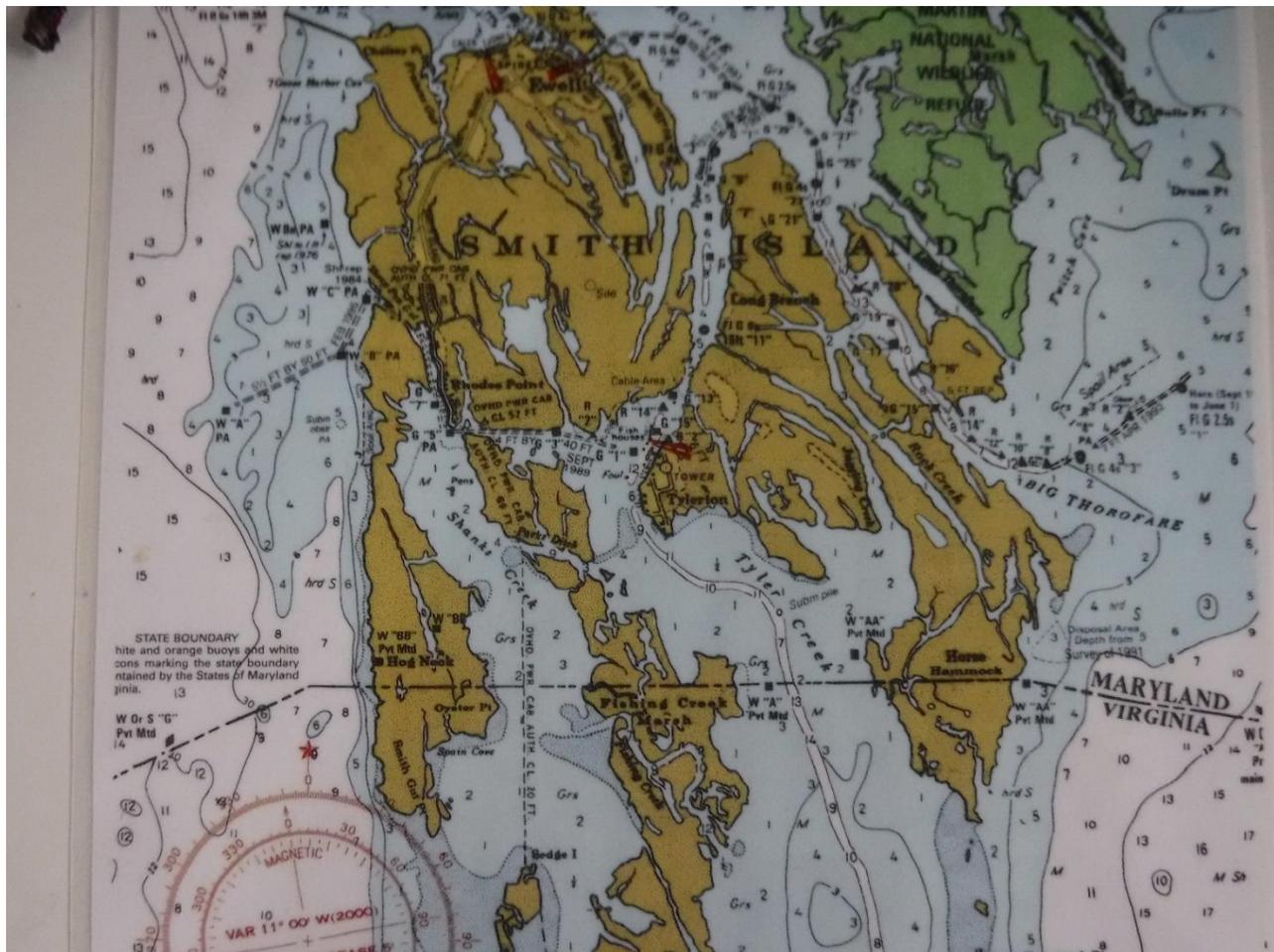


Photo: Rick Wiebush

The original price, I understand, was \$15 million, but has been reduced over time to a current asking price of \$1.5 million. I briefly entertain a thought...

As we headed back toward Tylerton and the ferry, we talked about the fact that much of what we saw on our chart bore little similarity to what we were seeing (or not seeing) on the land. One example: our chart showed something called Shanks Island down near where we saw all the pelicans on Saturday. But the sandy spit that was Shanks had succumbed to erosion and was nowhere to be seen. Our charts may have been slightly outdated but it wasn't really a problem as I confidently determined that our position was somewhat to the west of Gaul.

All told, a weekend well spent.



## The Rule of Thirds

*Larry Meisner*

“As sea kayakers, we often want – or need – to know how fast any tidal current we encounter will be moving. If part of our trip will involve going against the current, how hard will we have to work to make reasonable headway? If we are going with the current, how strong of a boost will we get? Or, if we are doing a crossing that involves current moving perpendicular to our intended path, how much will the current push us one way or the other?” - *Wiebush, Coastbusters, July 2019*

These comments were from Rick’s article on the use of the 50/90 Rule for determining how fast any tidal current we encounter is moving at different points in the tidal cycle. This Rule is a helpful aid in navigating in areas where there is significant current flow.

The Rule of Thirds is often discussed at the same time as the 50/90 Rule. While the 50/90 Rule provides an estimate of current speed at a specific point in time (i.e. at the end of each hour in the tidal cycle), the Rule of Thirds provides a simple means of estimating the average speed of the tidal stream *during each hour* of the cycle. You can use the 50/90 rule and do all the math to calculate the average tidal current for each hour, but the Rule of Thirds provides a simpler method for estimating this current value. It is important to remember that both the 50/90 Rule and Rule of Thirds provide estimates for the tidal stream current in the absence of more detailed data.

### The Rule

The rule of thirds states: The approximate average current speed can be estimated for each one-hour period during the flood and ebb of the current cycle. The progression is as follows:

- During the first hour (of the flood or ebb) the current flows at an average of 1/3 of its maximum rate.
- During the second hour the current flows at 2/3 of its maximum rate.
- During the third hour the current flows at 3/3 of its maximum rate.
- During the fourth hour the current flows at 3/3 of its maximum rate.
- During the fifth hour the current flows at 2/3 of its maximum rate.
- During the sixth hour the current flows at 1/3 of its maximum rate.

So how do we apply this Rule? Let’s look at the same example that Rick used in which we want to launch from the George Washington Bridge in the Hudson River and paddle south toward the Battery at the southern tip of Manhattan. For the particular day in question (January 1, 2019), the following is the available NOAA current data.

Time	Stage	Speed (knots)
1:18 AM	slack	-
4:12 AM	max flood	2.08
8:06 AM	slack	-
11:12 AM	max ebb	-2.09
2:06 PM	slack	-
4:30 PM	max flood	1.40
8:12 PM	slack	-

The distance from the launch site on the New Jersey side of the GW Bridge to the Battery is 9.9 nautical miles. If we paddle at an average speed of 3.0 knots this would take us 3.3 hours (3 hours 18 minutes). Depending on what time we launch the current will be with us or against us increasing our speed or slowing our progress. Using the NOAA information about the currents, and the Rule of Thirds, we can estimate our average speed while on the water, and thus determine the paddling time to our destination.

Let's assume we want to launch around 9:00AM on the morning of January 1, 2019. If we use an average paddling speed of 3.0 kts – not accounting for the current - we would arrive at the Battery around 12:18PM. But we need to account for the boost we will get from the ebbing current to get a more realistic estimate of how long it will take. We do that by using the data from Table 1 and the Rule of Thirds. Table 2 below shows the estimated speed of the current during each hour of the ebb.

Table 2.

**Rule of Thirds: Current at GW Bridge on 1/1/19**

Time	Cycle Hour	% of Max (Max = -2.09)	Average kts this hour
8:06	<i>Slack</i>		
8:06 – 9:06	1	1/3	0.68
9:06 – 10:06	2	2/3	1.40
10:06 – 11:06	3	3/3	2.09
11:12	<i>Max ebb</i>		
11:06 – 12:06	4	3/3	2.09
12:06 – 1:06	5	2/3	1.40
1:06 – 2:06	6	1/3	0.68
2:06	<i>Slack</i>		

From the average currents calculated above we see that between 9:00AM (our launch time) and 10:00AM we will be in the second hour of the ebb and the current will be running at 2/3 of its' maximum, or 1.40 kts. That current, combined with our paddling speed of three knots means that our

average speed will be 4.4 kts during our first hour on the water. Consequently, we will cover almost half the distance we need to travel in just the first hour.

During our second hour on the water (10 – 11AM), the ebb will be in its' third hour and we see from the Rule of Thirds that on average the current will be running at its' max of 2.09 kts. Which means that combined with our paddling speed of 3.0 kts, we'll travel 5.09 kts during that hour.

So if we go 4.4 kts in the first hour and almost 5.1 kts in the second hour (9.5 total), we would be just .4 miles short of our destination at the Battery. At that same 5.1 kts rate, we'd be there in less than five more minutes.

Using the Rule of Thirds becomes particularly valuable when you have to be at a specific point in a trip at a particular time to make safe passage through an area that has really strong currents. (In the Manhattan circumnavigation, that critical point is Hell's Gate, where the currents produce dangerous standing waves.) Then you would calculate backwards from the time you need to be at that point to determine the time you would need to launch to make safe passage. This is an application of the Rule of Thirds when you have a following or head on current.



Nate Hanson going nowhere against a 6 kt. current. Photo: Wiebush

### An Alternate Method

A more precise calculation for determining the effect of the current on the trip from the GW Bridge to the Battery is shown below. This is for the mathematically inclined and would calculate the time for each 3 NM segment of the trip:

The time to cover the first 3.0 nautical miles is:  $3.0 \text{ NM}/4.4\text{kts} = 0.68 \text{ hrs. (41 min)}$ .

We can do the same calculation for the time periods between 10:00AM to 11:00AM as well as 11:00AM to 12:00N:

10:00AM – 11:00AM:  $3.0 \text{ NM}/(3.0\text{kts} + 2.09\text{kts}) = 0.59 \text{ hrs. (36 min)}$

11:00AM – 12:00N:  $3.0 \text{ NM}/(3.0\text{kts} + 2.09\text{kts}) = 0.59 \text{ hrs. (36 min)}$

For the last 0.9 miles we estimate the average current at -1.40kts and the time to cover this distance is:

$0.9 \text{ NM}/(3.0\text{kts} + 1.40\text{kts}) = 0.20 \text{ hrs. (13min)}$ .

The total estimated time from the GW Bridge to the battery at peak ebb current is:

$(41 \text{ mins} + 36 \text{ mins} + 36 \text{ mins} + 13 \text{ mins} = 126 \text{ mins. (2 hrs. 6 mins.)}$ .

### Rule of Thirds and Crossings

The Rule of Thirds can also be used to estimate drift for long crossings when you have a current perpendicular to the intended course. This is primarily useful for crossings of 2 hours or longer. Here is an example (see Figure 1 on the following page):

We want to cross West Penobscot Bay from the road at the end of Jameson Point at Rockport on the mainland to Stand-In-Point on North Haven Island. Stand-In-Point is directly east (90 degrees True) of our launch location on Jameson Point. The total distance for the crossing is approximately six nautical miles. Based on our group average paddling speed of 3.0kts, we estimate this will take two hours to make the crossing.

But before we do the crossing, we need to figure out what kind of correction we need to make to our course to avoid having the current push us way south of our destination at Stand-In-Point. To do that we use the Rule of Thirds to determine how far we would drift if we made no correction. For this example, there is an ebb current running north to south beginning at 9:00AM and reaching its maximum rate at 12:00N of 1.5kts. We decide that we want to leave at 9 AM.

Using the Rule of Thirds, we determine that:

- During the first hour (9 – 10 AM) the average drift will be 1/3 of the maximum rate (0.5kts)
- During the second hour (10 – 11 AM) the average drift will be 2/3 of the maximum rate (1.0kts) and that
- The total average drift for the two-hour crossing will be 1.5kts

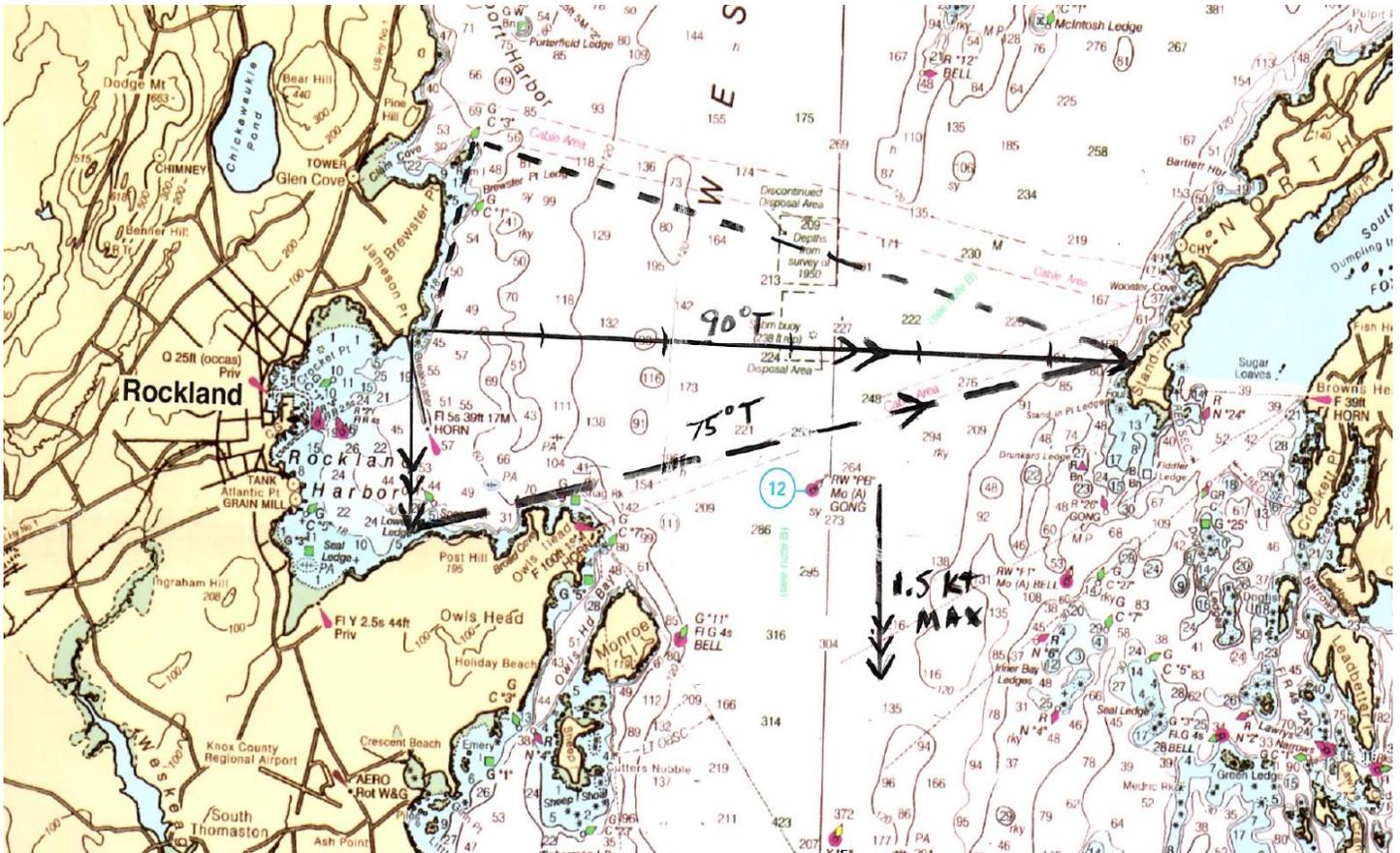
There are two potential ways to factor the amount of drift into our crossing plan. One solution (as shown by the short dotted lines in Figure 1) would be to paddle north for 1.5 NM about one-half hour before the beginning of the ebb. Then at 9:00AM head due east (90 deg T.). Although you would have a heading of 90 degrees, the 1.5 NM drift during the two hours would gradually push you down to your target of Stand-In-Point.

The second solution would be to determine what heading you would need to take from your launch spot that would take the 1.5 NM drift into account. In the example below, the necessary heading is determined by drawing the 1.5 knot current vector south from Jameson Point. From there we can draw

Figure 1. Correcting for drift in a crossing

KEY

- Heading ----->---
- Course over Ground ----->-->---
- Drift ----->-->---



a line to Stand-In-Point. This line is transferred to the compass rose on the chart and becomes our new heading. Using that approach, it is determined that a heading of 75 degrees – from our starting point at Jameson Pt. - would be needed to account for the 1.5 NM drift to the south during the crossing.

Whether you choose to use the 50/90 rule or the Rule of Thirds is a personal preference. Both can be used to estimate current drift for navigation solutions. Remember that the 50/90 rule gives you

the current speed at the end of each hour during the current cycle and the Rule of Thirds is used to calculate the average current speed during each one-hour period. Happy Navigating!

(For more detail on plotting courses and correcting for current drift see Sea Kayak Navigation by Franco Ferro, Pesda press Ltd.)

## Upcoming Events

Dates	Event	Location	Sponsor	Website/Contact
9/27- 29	Kiptopeke Symposium	Cape Charles VA	Cross Currents	Crosscurrentsseakayaking.com
10/10 - 13	Gales Storm Gathering	Munising, MI		galesstormgathering.com
10/10-13	Delmarva Paddlers Retreat	Lewes DE	Qajaq USA	Delmarvapaddlersretreat.org
10/18 - 20	Low Country Gathering	Charleston, SC	Cross Currents	Crosscurrentsseakayaking.com
10/20 - 23	SKG Skills Symposium	Tybee Is., GA	Sea Kayak Georgia	seakayakgeorgia.com/symposia
11/1 - 3	Autumn Gales	Stonington, CT	Kayakwaveology	galesstormgathering.com
11/9 - 17	Pacific Baja Rocks and Ledges	Ensenada, Baja MX	Jen Kleck, Cross Currents	Crosscurrentsseakayaking.com



*Punta Banda, Baja. Photo: Victor Leon*

## Contributors

*Mike Hamilton* is an ACA L3 instructor who specializes in Greenland paddling and is one of the main organizers of the Delmarva Paddler's Retreat. Mike lives in Sykesville, MD.

*Ron Kleiman* paddles widely throughout the mid-Atlantic region and lives in Williamsburg, VA.

*Larry Meisner* is an avid rough water paddler and BC 4\* Sea Leader. Larry lives in southeast Pennsylvania.

*Whitney Sanford* is an L4 instructor, sea kayak and SUP expeditioner, and Religion Professor at the University of Florida in Gainesville.

*Thomas Suppan* is an ACA L3 instructor who lives in Manassas in northern Virginia. He has a knack for being in the right place at the right time.

*Rick Wiebush* is an ACA L3 Instructor Trainer, L4 Open Water Instructor, and BC Sea Leader. Rick runs Cross Currents Sea Kayaking and organizes the Kiptopeke Symposium. He has paddled the Sea of Cortes, the Amazon, the Exumas, Greenland, the U.K., Australia and New Zealand. He lives in Baltimore.

***Coastbusters* welcomes submissions of trip reports, incident descriptions and analyses, skills and "how-to" articles, boat and gear reviews, book and video reviews, and sea kayaking-related photographs.**

**We are interested in receiving submissions from all paddlers. It just so happens that many of this month's contributors are instructors. That is not a requirement.**

**Articles should be limited to about 750 – 1,000 words and submitted in Word. Photos should be submitted in .jpg format. Please send your submissions to Rick Wiebush at [rwiebush@gmail.com](mailto:rwiebush@gmail.com).**

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