

2018 Cow Bay Regatta Notes (M242 North Americans)

Written by Michael Clements, owner of Too Wicked - #304

General Overview:

This year we saw variable conditions up the beach and offshore, mostly medium wind (8-15knots) again that required full-on hiking in every race. As such, our 791 pounds worked out very well (Michael, Jeremy, Steve, Justin). As with 2017, it definitely paid to check the wind offshore on the upwind and downwind legs, especially since sometimes initially it would pay to go offshore off the start, but loop back into the beach somewhere before or after Cherry Point Marina ("CPM"), and then loop offshore again somewhere right around the next Point itself (marking the beginning of the big Bay leading to the house with the dock) to get the progressive lift that would start to kick in more and more. This year we found that the head-to-wind change from the start line to the weather mark was 2.5 kumquats (going from 8 to 10.5, roughly). Some years it is much more, like 3 kumquats.

We managed to win the event out of 18 boats and got a variety of starts, but mostly Good (5) with one Excellent, and a couple of Mediocre's out of the 8 races, down in quality from 2017. But that was good enough. We almost always had perfect clean air off the start, coupled with the ability to tack any time we wanted, and that's all that's needed.

The wind was quite cool during the day and night, partly due to a cold Thursday and Friday southeasterly wind. The wind was therefore 10-12knots most races, with lulls down to 8 and peaks at 15 apparently. The Doctor started to come in around 9am Saturday and maybe 8:45am Sunday, which was good to see.

Results and Regatta info can be seen here:

<http://www.cowbay-regatta.ca/2018/index.htm>

This is the brief write-up I sent to our Team after Day 1:

"We've started off today with a good set of scores: 1, 1, 4, 1, and have a narrow lead of 4 points over Phil Cragg & Reto Corfu (subject to protests: they have several filed against them in different races - oops). The wind was excellent today at about 8-12 knots 99% of the time, so it was full-on hiking almost all day.

The current was very interesting today: it did not pay to dig into the south side shore very much, and in fact paid to stay offshore in the middle of the course most of the time due to the ebb current in Cowichan Bay.

Fortunately we spent over 3 hours on Friday sailing up and down the long race course 3 times, so we got an excellent handle on the conditions, which were almost identical today, and thus helped us start off with 2 bullets.

And as another example of how we capitalized on Friday's knowledge, part-way thru the last race it became apparent that it was possible to launch way offshore into the strong ebb current coming from Sansum Narrows, which rocketed our speed up to 6.9 knots for about 7-8 minutes, versus our normal upwind speed of 5.4 knots

under perfect conditions. As such we moved up into 1st in that last race at the windward mark, passing about 3 other boats in the process.”

And this is what I emailed Sunday after it was all over:

“Today was a fairly close carbon-copy of the conditions yesterday, and to cut a long story short we got a 1,1,1,3 today, so we wrapped up the event with 6 bullets and two 3’s. Phil&Reto were unfortunately DSQ’d this afternoon from two races yesterday due to a technical Class Rule issue around switching spinnakers in the middle of a day of racing.

Matt Collingwood and Team were 2nd Overall, an outstanding result, and Chris White and Team from Orcas Island was 3rd Overall, also an outstanding result, as they’ve only been sailing M242’s for 5 years.

Honourable mentions include Betsy Wareham in 4th overall, and Ken Machtley in 7th overall (a massive improvement from the 2016 NA’s), both of whom are also from Orcas Island.

Connie Leung was “Most Improved Crew”, and Chris White won the Screwdriver Award for running aground twice during our practice session on Friday as he was trying to eke out a small edge over us during our tacking duels up the beach.”

Current:

Unlike last year, the current was ebbing at Sansum Narrows most of the weekend. Here is the current & tidal info each day:

Thursday: Sansum started flooding at 3pm, and we saw a big ebb at CPM at 6pm

Friday:	Slack	9:12am
	Max Ebb	12:18pm 1.31knots
	Slack	4pm
	Max Flood	7:06pm

Cow Bay High	10:23am 7.83’
Cow Bay Low	4:20pm 5.93’

Saturday:	Slack	10:30am
	Max Ebb	1:27pm 1.13knots
	Slack	5:15pm
	Max Flood	8pm

Cow Bay High	12:08pm 7.85’
Cow Bay Low	4:20pm 6.87’

Sunday:	Slack	11:46am
	Max Ebb	2:46pm 1.05knots
	Slack	6:34pm
	Max Flood	8pm

Cow Bay High	1:48pm 8.25’
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On Friday, when Justin, Steve, and I were on our first downwind from the windward dock, we noticed that the current was just hinting at a flood on the crab buoys off CPM. This was about 12:45pm.

On the 2nd upwind with Jeremy on board there was definitely a flood at CPM. We split tacks with Chris White just past the square hedge whereby we went way offshore and hooked into a 0.4knot ebb, and when we came back together again after a huge separation we found ourselves on a big geo header (of course...a 2.5 on the sidebar) and Chris passed us by about 1 boat length. Not bad for about 4 minutes going our separate ways. We also found we had lighter air offshore, which contributed to the header effect on our way back to the beach. So he gained on the geographic shift and probably lost on the current, and we gained on the current and lost on the geo shift.

By the 3rd upwind we saw a big ebb just past Separation Point. There was a major tide line visible, plus standing waves and whitecaps, so we sailed into it, tacked onto port, and sailed up to the RC Rib that was waiting for us at the likely weather mark position. It was at least 0.6knots favorable offshore with the ebb, and at the hedge just past CPM it was a 0.8knot unfavorable flood. (well, favorable if you were going downwind...), so the net differential was 1.4knots, which is huge. We saw this level of differential on Sunday in the 4th race.

Lastly, late in the day when we were heading back in, there was a significant back-eddy by the Gov't Dock which extended up to the east end of the campground. This makes sense, as it would have been the beginning of the big ebb at CPM that we saw on Thursday at 6pm.

Sail Settings & Boat Handling:

In terms of sail settings, the jib was always at the light air car setting; the jib halyard was set for a hint of wrinkles; the jib was never boned in tight and was occasionally eased somewhat in lulls (unlike the bone-on error in 2016); the main was max height; the outhaul was eased somewhat (2-3" gap) because we could handle the power (but was occasionally boned on in the stronger wind, but we never took the hook out); the mainsheet was set to fly the 3 lower telltales as much as possible; the traveler was fairly high to get the boom on centerline (except in the puffy 12-15knot conditions), which meant the trav car was usually at or above center. And we hiked almost all the time.

We also experimented with roll-gybes downwind, which is something to hone going forward. We did a little bit of roll-tacking upwind, but it was generally too windy for that.

The Start:

The start line each day was once again roughly in front of the small beach house just west of Jeff Arndt's place. It was usually skewed anywhere up to 18degrees (1 kumquat) at the pin end, but we never started very close to either end of the line (I have learned my lesson...although in one race we were within 1-2 lengths of the pin at the gun and had to thread our way thru a few boats – won't do that again – we

were amazingly lucky because those boats peeled off both ways because they were OCS).

Generally we went for mid-line starts and launched offshore. Worked most of the time.

1st Upwind Leg:

The “race to the beach” was not the standard move each race, and once again we really had to sail “heads up” all the time and evaluate the changing conditions all across the course, because the “sweet spot” for current would start near the beach for Race 1, and then steadily move offshore during the day as the “flood” (which was really just a giant back-eddy starting probably as far east as Saanich Inlet / Mill Bay) would strengthen on the beach while the ebb was still in effect offshore, particularly once boats got out past Separation Point and got the full ebb effect from Sansum.

It is important to note at this point that it is now abundantly clear after 12 years racing at Cow Bay that the Sansum Narrows current effect plays a massive role in the Cowichan Bay currents, often with a several hour lag effect. Saanich Inlet also plays a role. It is crucial to gain an overall understanding of the current flows during the day, and map them out on the Friday accordingly as they change from hour to hour. In general (with large caveats), it is fair to say that:

- If it is ebbing in Sansum Narrows, at some point after max ebb a “flood” will start developing along the CPM area, while the ebb will stay in effect across a diminishing section of the Bay, moving from south to north over time. And just past Separation Point you can get into the ebb rocket current, but remember to not go blindly over there because you can get hammered by the geo shift. Prior to the “flood” developing along CPM there will be a broad-based ebb across the whole Bay, but because of the wind strength and geo lift, initially the CPM area is the go-to spot off the start line for Race 1, and not much further out than that for Race 2. This has to be evaluated carefully each year and not taken as gospel.
- If it is flooding in Sansum Narrows, at some point after max flood an ebb may start developing along the CPM shoreline due to the flood splitting on either side of Separation Point and creating a toilet-bowl effect in the Bay (like Vancouver), whereby the real flood will stay in effect across a diminishing section of the Bay, moving from south to north over time. However, it has been my experience quite a few times in the past that if it is flooding at Sansum, it is also flooding along CPM as well as in the middle of the course, so it's the beach or nothing. This seems a bit weird, given that we can also see a “flood” at CPM during the latter stages of an ebb, but it is what it is. This is why it is so critical to get out at 11:30am on the Friday and map the currents for 4 hours. Rule of the 7 & 11 P's, and “no excuse to lose”.

Aside from Race 1 each day where it paid to drag race to the beach from mid-line to get close to CPM (where the ebb was probably strongest), launch out a bit into the current&wind cone, and then tack back into the beach somewhat well past the square hedge, most of the time it paid to just launch way offshore on starboard off the line (except for perhaps Race 2 where a short hitch to the right would work to get into the current and wind sweet spot) and only after 5 or more minutes tack

back into the beach because that's where the geographic shift would start to take effect and boats would get big starboard lifts.

By the way, once again, about 100-150 yards past CPM was where the true geographic shift epicenter was located (**what we call the vapor-lock zone**), and it extended another 200-300 yards east. At the middle of this low-wind epicenter was the large square hedge on the beach.

Reminder: This area has to be avoided at all costs upwind and downwind. because any boats that sailed too close to the shore in this 300-400 yard zone got themselves vapor-locked. About 100-150 yards offshore was the beginning of the danger area, and it would get really bad really fast the closer you got. The telltale sign re wind strength in the vapor-lock zone was whether or not the water looked "glassy" when it was observed from a long way away. If it was, there was no wind there.

The weather mark was generally 500 yards offshore from the house with the dock. As such, we never got tucked in tight to the beach near the dock like many years, and most of the time we never got within 200 yards of the beach due to the geo lift. (it was easy to over-stand at those times due to the geo lift – we frequently eased sheets and sailed low and fast to the mark when needed).

Wind strength both race days was once again the over-riding factor: if boats got into lighter breeze anywhere on the course they died relative to boats that had 2-3 knots more airspeed, regardless of current factors.

As such, we consistently broke the general Rule past CPM to not sail further offshore than north of a direct line from the windward mark down into the Bay (this Rule is in effect due to the prevailing geographic shift). Wind strength combined with advantageous current saw our speeds frequently hit 5.7-6.2 knots, above the 5.4 target speed, so we were drawn quite far offshore at times, particularly late in the day when there was a flood on the beach and an ebb offshore.

In Race 2, Day 1, we launched offshore fairly far, came back into the middle right (because that's where the current cone was strongest), and tacked early on the starboard layline and got lifted right up to the mark (which was noticed by Alan Drinkwater and apparently forgotten by us in the next race). So we had our 2nd bullet of the day.

In Race 3, Phil&Matt launched way offshore. We tacked in towards CPM, crossed a tide line (oops – the "flood" – helloooooo – anybody home?) and also walked into lighter air, so by the time we said 10 seconds later, "crap – let's get out of here", Phil and Matt crossed us by a few boat lengths in the middle. We then went out while they went in, and then next thing we saw was that they had hooked into the geo inshore, so we felt compelled to get in there and stay attached to them. We did so and tacked to weather of them, with Chris White right below us. Unfortunately, Alan Drinkwater tacked way below all of us on the starboard layline (he had learned from the prior race, as mentioned) and scooted up into 2nd from 5th, because all of us wallies went way too far inshore and over-stood by 200 yards. In hindsight we should have come off the line and launched almost all the way to Separation before tacking back in. Or at least remembered what happened in Race 2 and tacked way early on the layline like Alan did: we would have been 1st at the mark, not 5th.

In Race 4 on Saturday we saw Tod Gilbert sail along the north side of the Bay and rocket into the lead once he got past Separation Point. Prior to that we had played ping-pong, whereby initially we went out, then in to cover the guys looking good on the beach, then out because the guys offshore were looking good, and it was only then that we saw Tod and said, "holy crap – look how fast he is going along the Separation shoreline!!!" If he hadn't come back on port towards us on a massive header, he would have been gone. As it was, he tacked onto starboard 3 lengths in front of us (we switched from "Yay Tod" as he was crossing to "Boo Tod!" as he tacked on our face), we tacked away, he tacked to cover, we tacked again and went way offshore into the standing waves while he hit the beach, and we were hitting speeds on starboard of about 6.3-6.4knots, and on port of 6.9knots, along with a decent lift. We moved 200 yards ahead of Tod at the mark.

If there had been a 5th race on Saturday (oh – so close – just needed another 5 minutes of time before the 4:30 cutoff or whatever it was) our gameplan was to launch off the start line and tack once onto port waaayyy past Separation. We would have annihilated the Fleet in the big ebb.

With regard to the geo lift, it appears that it really starts to kick in just past the Point at the entrance of the Bay leading to the house with the dock. There's a big grassy patch apparently just past the Point which is where it's best to launch offshore. Initially, according to Matt, any boat tacking there would not be laying the weather mark, but would get steadily lifted up to it. Plus, if you dip into the Bay too far, it can be a light air trap. Our view is that we thought we had to be offshore enough so that CPM was due west of us. We felt that was the optimal launch point (which would have been good to remember in Race 3). This needs to be rigorously tested each year, and will probably vary with wind strength.

Our only mistake in Race 4 on Sunday was that I wanted to go for broke on the left corner again past Separation when we were either 1st or 2nd relative to Ken Machtley, and while we got a bit of an ebb, it was nothing like the prior day, and instead Phil/Reto and Matt hooked into the standing waves closer to the beach (which we saw, but I ignored), along with a massive lift, and crossed 50 yards ahead of us, and Chris White also ended up right behind us. Damn. But it was fun to try anyway because we did not need to sail the last race.

One reason I stayed out left so far and so long was that as we were launching waaaayyy offshore we would look back on our right hip and see all the inshore boats pointing way lower and going way slower. We probably had 1-1.5knots on them at times and 10-15 degrees of point – it was brutal. So it seemed like a no-brainer to keep going. Until it stopped working, right where we entered the left-most standing wave zone. We got a bit, but Phil/Reto and Matt got way more in a much bigger standing wave section inshore, plus a lift and more breeze. Ooops. Clearly they hooked into some weird upwelling of the current that we did not get, which makes sense because the water depth is 200' shallower where they were.

Downwind Leg:

On the downwind leg it once again almost always paid to do a no-pole hoist & gybe right at the windward mark, drive into the beach (but not as far in as the vapor-lock zone), gybe onto starboard to get past CPM (passing maybe anywhere from 100-150

yards offshore and aiming well north of the start pin), and gybe onto port at CPM to drive down the beach to the finish line area. In this manner we got the most wind strength and were also playing the geographic shift down the run. One race Betsy made up at least 150 yards on the Fleet and us when we looped offshore and she dug into the beach. Oops.

But once again we had to avoid the glassy zone on the beach, or we could get screwed (like several boats did who dug into the beach, including Phil in the last race which enabled Matt to pull away for the win). On occasion we would get within 15-20 yards of the death zone, feel the wind start to die, and we would gybe out of there just in the nick of time.

And once again the wind definitely re-attached to the beach just past CPM, such that we would “sail into the breeze” (which materialized around us again out of nothing in a bizarre way), and accelerated down the beach from there (while curving slowly all the time), which was a tad weird because it was only 200 yards west of the end of the dead zone. But it was there pretty much every race. The beach paid off 90% of the time downwind. We did launch offshore once or twice and it worked, but only when there was tons of breeze.

A telltale sign re wind strength was all the flags flying at CPM and also on the 2 Committee Boats (*note for next year again – use the binoculars!*).

At the low bank, shallow area near the finish line Committee Boat was where it paid to drive into downwind on port, and then flip onto starboard right at that point because the geographic header would kick in all the rest of the way to the leeward mark.

One major note again re the lead up to the starboard gybe at the finish line boat: rather than trying to force the boat to sail lower on port gybe (thus fighting against the geographic curve that was kicking in more and more as we progressed down the beach), it was better to sail higher and faster and accelerate into the curve at a quicker pace, or gybe sooner than in prior years if we were by-the-lee. And given that the wind would frequently puff and lull, this was all the more reason to sail higher in the lulls and not force it down too much in the puffs. In this manner, we would get to the optimal gybe point much faster, and when we would eventually gybe onto starboard the curve would keep on working in our favor all the way to the leeward mark, which we would easily lay at that point.

At the bottom of the Bay the wind started clocking to the north at times, but nowhere near as bad as in prior years. The wind accelerated again in the bottom of the Bay, so it was a rich-gets-richer kind of deal if the last gybe was timed right.

2nd Upwind Leg:

Once again the trick on the 2nd upwind leg was to just stay in the breeze, knowing that it would slowly head us on port tack as we went into the beach, and simply cover the boats behind. They usually (but not always) once again fell very slowly into us on port tack due to the very slow heading phenom. Occasionally it paid to tack offshore into clean air clear of the spinnakers, but not too far. There were no holes on the beach this year.

Summary:

In summary, this was a somewhat atypical Cow Bay weekend again because of the ebb current, but was probably closest to the year when Alex Fox looped offshore a bunch of times and did just fine. We had trouble figuring it out at the time, but now it all makes sense due to the toilet bowl effect.

As such, the “race to the beach” was not the standard move each race, and you really had to sail “heads up” all the time and evaluate the changing conditions all across the course, because the “sweet spot” for current would start near the beach for Race 1, and then steadily move offshore during the day as the “flood” (which was really just a giant back-eddy starting probably as far east as Saanich Inlet / Mill Bay) would strengthen on the beach while the ebb was still in effect offshore, particularly once boats got out past Separation Point and got the full ebb effect from Sansum.

Aside from Race 1 each day where it paid to drag race to the beach to get in close to CPM, launch way out, and then tack back into the beach somewhat well past the hedge, most of the time it paid to just launch way offshore on starboard off the line (except for perhaps Race 2 where a short hitch to the right would work to get into the sweet spot) and only after 5 or more minutes tack back into the beach. And once again the vapor-lock zone was in play east of CPM, epicentered on the hedge.