

2020 Laser Nationals – Regatta Notes

General Observations

- Venue – Sandringham Yacht Club with two courses. Stadium and Offshore.
- Tide - Neither course was affected by much in the way of tidal current due to minimal (<1m) differences in low and high tide within Port Phillip Bay at this location.
- Information on conditions. – well covered for wind direction and speed by the Faulkner Beacon which is located ~6nm immediately offshore the venue and clearly visible. The height of the beacon (17m above MSL) does tend to give slightly higher wind readings to those experienced at the club. No nearby tidal current buoys are available within the bay.

Weather

The weather conditions can be split into three categories:

1. Smoke haze and overcast with light oscillating winds less than 10kn from S/SE (after it established itself) on the Offshore course on Day 1. This pattern of oscillating breeze was superimposed on a gradual shift to the left during the day as a weak sea breeze developed making the course left favoured most of the day.

Day 2 was lost to high winds.

2. A wet Day 3 with light winds of 5-6kn building to 10-12 kn on the stadium course. Although visibility was reduced on Day 3 it was possible to identify banks of cloud lined up along the course axis moving across the course. Each of these appeared to be related to changes in pressure and direction and were responsible for the oscillation seen at sea level. Generally an oscillating breeze with patches of better pressure at times coming down the course.

Visibility was so poor on the offshore course for Day 4 that boats 200m up the course were hard to distinguish and the top mark not visible from the start so seeing any approaching cloud patterns was impossible. This presented unique challenges to competitors in observing changes in the wind up-course. Overall however winds were 6-10 kn from the S-SSW-SSE. Again an oscillating breeze with patches of better pressure at times coming down the course.

3. Improved visibility with more consistent breeze on Days 5 and 6. Day 5 started with bands of rain clouds running along the coast to the east of the racing area. Each of these cloud banks brought breeze and a left favoured track. As these cleared however the wind swung slightly to the west and the breeze established as a cleaner oscillating pattern around a mean direction and a more even track. Winds were 10-15 kn again increasing gradually through the day. Day 6 was clear with winds driven by a seabreeze on the gradient. The race track was again more even, 10-15kn from the south.

Conclusions

- On clear days a sea breeze establishes in the afternoon and builds gradually into the evening. In light gradient conditions (eg Day 1) the initial indications of the sea breeze is a light wind perpendicular to the shore that swings to the SE-S as the sea breeze strengthens. Strongest wind conditions (15+ knots) was only after race time on most days. Minor oscillations around the established sea breeze directions were evident but not extreme (<10 deg).
- On overcast days the gradient wind dominated for most of the day with cloud bands strongly influencing the wind direction and strength. Persistent shifts could be observed along with oscillations related to cloud bands and rain squalls. Late sea breeze influence was also observed.
- Early in the regatta when winds were light, on overcast days with a weak sea breeze and in rain effected conditions, one side of the race track was usually favoured (left looking up course to the south was the most common).
- On the Stadium Course (inshore) there was a distinct topographic / land influence making the left side of the course favoured particularly on the outer loop of the trapezoid. This was a combination of wind bend and pressure along the shore.

Racing – lessons learnt

A number of common issues arose with the competitors being coached. These are summarised below.

- Starts

The large fleet, high quality competition and long start lines presented challenges to most of the team.

With nearly 70 boats in each start getting a clear transit (made harder on the hazy / rainy days) was very difficult. Also given that the course on most days had a favoured end / side, there was a lot of pressure to be at the correct end of the line. Our teams line perception given the length of the line was often mentioned as an issue. *Recommendation – undertake more long line start training (>0.1nm ideally 0.2nm which was often the line length at the regatta).*

The quality of the fleet (50+ internationals here for the Oceania's and Worlds in an Olympic year!) meant that the team were really up against the best in the world. The level of starting expertise was immediately evident and most struggled initially with this. A lack of experience at this level in terms of risk management, timing on the start, aggression to hold / defend all showed. This did improve however with

some of the group as the regatta progressed. *Recommendation – participation in more large fleet regattas.*

One other issue of note off the start was the ability to accelerate in larger swell (rather than chop). Often competitors were observed being in a good position, having a reasonable trigger pull only to stop or slow down as they encountered a wave immediately after the start. This was attributed to timing in relation to trigger pull versus location on an approaching wave causing disconnection of the bow.

Recommendation – more exposure to larger swell conditions. Possible sessions to be planned east of Green Island or a Mooloolaba camp.

- Lane holding

Again this was a common issue. Multiple team members occasionally had good starts only to be rolled or pinched off soon after the start. It was observed that this could be attributed a number of factors:

1. Inability to sail in high mode in waves whilst maintaining speed
2. Inability to maintain height in waves (steering)
3. Lack of lighter wind speed and mode / gear changing experience
4. Propensity to look around too much immediately after the start rather than total focus on speed and height (too much time worrying about what is happening to windward rather than trusting the process / your ability). This is largely an experience thing.

Recommendation – specific high mode training. Specific sessions in trying to achieve speed and height with focus on boat set up and technique.

- Getting out of the pack

In these large fleets it was imperative to get clear of the boats around you. Many struggled with this. Additionally, on many days you needed to do this while going to the correct side of the race course. Without good starts and lane holding this was hard to achieve. Many got the idea of this however as the regatta progressed with results overall improving.

- Positioning at mark roundings (in and out)

Most of the radial group positioned themselves well coming into the bottom mark (most observed from my point of view). The issue came coming out of the mark. On a number of occasions, they ended up bow down on the boat in front and eventually being in the leading boats dirty air. Given the fleet size and quality, it was very hard to tack off to clear yourself in this position. This positioning was due to a couple of factors. Firstly, the lead boats often “shoved their nose up” going around the mark to ensure they got high on the lay line leaving the mark. Our group was not doing this. Secondly, there appeared to be a common habit with some of still fiddling with controls rather than concentrating initially on maintaining height. *Recommendation*

– specific session on positioning into and out of marks. Discussion on options available in a large fleet.

- Waves

On days where the pressure built up over 12 kn, larger swell developed that could be effectively steered through (rather than power up in chop). A lack of exposure to this type of sea state was telling (especially off the start line) and would have lost most of the squad places over the length of a race. We need to work on this.

Recommendation – more exposure to larger swell conditions. Possible sessions to be planned east of Green Island or a Mooloolaba camp

- Downwind

Given the size of the fleets, getting clean air downwind often meant picking a side at the top mark and committing immediately. On the outer loop this was often the left side looking up course as it was easier to get swamped by the fleet coming down the reach. On the inner loop this was not the case but in a number of races there was a preferred side due to pressure and angle. Sailing on the correct angle and gybe downwind relative to the swell was also very important with big gains to be made if you got it correct and played the angles / swell effectively.

- Strategy

I was most impressed with the squad in how they have started to think strategically both before and during a race. All of them developed a plan based on conditions and tried to execute this. The factors mentioned above however strongly impacted on their ability to stay on strategy and were often having to change plans to suite their position in the fleet.