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Commanders Weather Client

Event: 2024 Pacific Cup – San Francisco to Kaneohe Bay, Oahu, Hawaii
Start: 1100pdt Mon Jul 15
Prepared: 0600pdt Mon Jul 15 2024

Summary...

- 1) Low pressure is centered a little over 100 nm west-southwest of SF this morning, with high pressure on the far side of that
 - a) this set-up will keep the typical N trade winds out near 127w today while a light SSE gradient remains in place near the coast
 - b) already these winds are turning right and funneling into the SF area from the WSW
 - c) early this AM they are solidly around 10-12 kts under and just past the Bridge
- 2) By the start of the race this W to WSW sea breeze will be the only wind in the area, mostly between about Bolinas and Half Moon Bay
 - a) so it still looks best to head south at the start, with the best wind right along the coast during the peak heating hours
- 3) When things start to cool down, the likelihood for quickly-diminishing wind is highest just south of Half Moon
 - a) so we will want to start to retreat from the coast this evening, heading more southwest, aiming for maybe 37n/123w tonight
 - b) but in a change from earlier forecasts, it looks like a NW breeze may remain in place near/south of about Pescadero, funneling down into Monterey
 - c) so if you are comfortably south of Half Moon by evening, you can continue heading south then southwest (moving offshore just north of Monterey) in this breeze
- 4) After the sea breeze dies we will be subject to the next light wind regime that develops just away from shore
 - a) a light offshore breeze is possible overnight into early Tue, or the SSE gradient may slowly redevelop
 - b) but this time frame has the highest chance of calm weather slowing things down, especially near shore between Monterey and Half Moon
 - c) in general it looks best to aim west-southwest to west as best as you can during this time – there should be a few knots of wind from somewhere as long as you avoid that area of coast
- 5) During Tue the offshore low pressure area will lift to the north and start to fall apart, allowing the NNW trade winds to fill back into about 126w
 - a) between there and the coast the gradient wind will be much lighter, but some WNW to W breezes will become increasingly frequent as the day wears on
 - b) by about sunset Tue it looks like a more consistent WNW to NW wind will fill in for all racers southwest of SF
 - c) the farther west you are (south of about 37n) the sooner these winds will reach you
- 6) More consistent – but still relatively tame – NW wind Tue night thru Wed will favor good southwest progress
 - a) a general heading towards 32n/130w will keep you comfortably south of light air/ high pressure sitting offshore

- 7) This high pressure system will be centered just on the far side of 35n/130w during the middle of the week before starting to weaken and lift northward
 - a) in order to avoid this area of light air – which is expected to linger around 30-35n for at least a few days, with a series of weak fronts passing on the other side – it continues to look best to route south of the high for this race
 - b) east of the system NW winds will follow you thru Wed
 - c) then they will veer N during Thu and into the NE starting on Fri
- 8) Wind speeds will not be particularly strong (or seas very high), but as the high pressure system lifts away, average wind speeds will tick up thru the end of the week and weekend
- 9) If you need to gybe to keep an angle on the wind it looks best to favor a southwest heading thru the weekend
 - a) a more westerly heading may be necessary early next week,
 - b) then you should be able to turn left and head directly down into Oahu as trades settle from the E thru the end of the week
- 10) After that initial high pressure system lifts north and diminishes, a new, larger high pressure area will be setting up well to the north
 - a) this will maintain NE to ENE trade winds between itself and Hawaii while protecting you from any impacts of fronts farther out in the Pacific
 - b) it will also prevent any significant swell events from reaching you
- 11) A few feet of a long-period SSW swell will be in place for the first several days, with a shorter (9 sec) period NW swell likely filling in at the end of the week
 - a) getting into the weekend and beyond, we'll need to watch for SE swell as a potential tropical system passes to the south:

Tropics

- 1) A cluster of t-storms southwest of Mexico shows a bit more evidence of organization this morning
 - a) the threat for rapid development remains low, but the National Hurricane Center estimates a 40% chance that it becomes a tropical depression or storm in the next 7 days, an increase from yesterday
- 2) It will track northwest then west-northwest over the next several days at least, largely staying south of 20n
 - a) there's a chance it reaches that latitude next week as it nears the Big Island
- 3) Its closest pass to the Big Island will be during the middle of next week while most competitors are still nearly 1000 nm away
 - a) so direct impact along your route is unlikely, but enhanced trade winds and some SE swell are possible
- 4) Since we already had Tropical Storm Aletta off southwestern Mexico late last month, the next storm will be called Bud

Wind forecasts

Wind directions are in MAGNETIC, wind speed in KTS, and time is PDT

Mon Jul 15

- 1) A gentle SSE breeze running directly up the outside coast is turning right and funneling under the bridge as a WSW onshore wind this morning
 - a) peak sustained winds will likely hover in the low teens thru the start of the race, and may peak in the mid-teens during the heat of the afternoon
- 2) Offshore to the south the SSE wind will shift into the WSW sea breeze in the meantime, mostly between about Bolinas and Half Moon Bay
 - a) the peak sea breeze will be around 8-15 kts,
 - b) and will decrease as the evening wears on/ you make southward progress down the coast

- 3) The likelihood for completely calm conditions will increase as the evening/night wears on and the sea breeze falls apart completely between about Half Moon and Monterey
 - a) the SSE gradient may redevelop just offshore after the sea breeze diminishes,
 - b) favoring a south then south-southwest heading down the coast to get started – but this outcome is looking less widespread
- 4) However, near/south of about Año Nuevo, the breeze is instead expected to shift into the NW and funnel down the coast into Monterey overnight
 - a) so if you can get past that area by sunset, you have a chance at more useful NW wind to get offshore tonight
- 5) Regardless of when you head offshore, winds will likely be calm for some period of time 5+ nm away from shore late tonight into tomorrow morning

08: 200-230/ 7-13

11: 220-240/10-15 near or just past GG Bridge

14: 210-230/ 7-13 may be blowing more onshore

17: 090-110/ 3-7 right along the coast

20: to 350-010/ 4-9 or less, starting to head offshore north of Monterey

23: 350-010/ 3-7 near 37n/122 35w

Weather...Areas of fog, chance drizzle just outside and south the bridge, partly/variably cloudy offshore
Seas 3-4 ft, small W swell under the bridge turning NW (7 sec) outside

Tue Jul 16

- 1) By dawn Tue wide areas of the coast between SF and Monterey will be calm, with a WNW onshore breeze up near the former and a NW breeze around the latter
 - a) more offshore areas will be split between the two, with scattered areas of light westerly breezes and calm
 - b) while there will be some ongoing NNW breeze farther down along the coast, heading offshore to the southwest when you can will be the best way to catch the incoming trade winds as quickly as possible
- 2) As the day goes on the NW wind on the far side of 125w will increasingly filter towards shore as a more WNW to W breeze, though it will only come in fits and spurts for a while
 - a) it will increasingly fill in towards the coast especially during the 2nd half of the afternoon
 - b) there is a chance it arrives sooner, but the route plan below plans for a slower outcome
- 3) Passing 123w today is the goal for more quickly increasing, consistent WNW to NW trade winds by nighttime

02: 240-270/ <7 heading southwest

05: 200-230/ <7

08: 220-250/ 3-8 near 36 35n/123w

11: 250-270/ 4-8

14: 260-280/ 6-12

17: 280-300/8-15 near 36 10n/123 35w, trade winds!

20: 300-320/12-18

23: 310-330/14-20

Weather...Low clouds/fog near shore AM, otherwise mostly/variably cloudy
Seas 4-6 ft, SSW swell (12+ sec) and small wind waves

Wed Jul 17

- 1) Low pressure will continue to depart to the north, allowing high pressure to the west to push NNW trade winds across your route
 - a) all signs point to a relatively light outcome, with little to no wind over 20 kts
 - b) winds may even settle under 10 kts at times

- 2) The wind direction will remain solidly from the NW to NNW, allowing you to make progress towards the southern side of the high pressure system
- it will be important not to pass 125w too soon Wed AM, where winds will decrease closer to the high pressure center
 - keeping 35n/125w on starboard will help with this

05: 320-340/14-20 near 35 10n/124 55w

11: 320-340/12-18

17: 320-340/12-17

23: 330-350/12-17

Weather...Mostly to variably cloudy, chance long periods of PM sunshine

Seas 4-6 ft, SSW swell (12+ sec)

Thu Jul 18

1) The gradient wind is expected to fill in a bit better thru Thu as winds veer NNW to NNE along your route towards the southwest

- high pressure will be centered on the far side of 130w, maintaining these trade winds

- average wind speeds are still expected to be in the mid-teens

2) These somewhat tame trade winds will minimize the threat for regular, disruptive trade squalls

- otherwise the weather will be pretty settled with an expansive cloud bank in place, maybe some brightening/periods of sun late in the day

3) The same few feet of a very long-period SSW swell will remain in place

4) Farther back in the fresher NW wind near shore, there will also be a couple feet of additional NW chop

05: 340-360/12-17 near 33n/127 15w

11: 350-010/12-17

17: 360-020/12-17

23: 010-030/12-17

Weather...Mostly cloudy

Seas 5-7 ft, SSW swell (12+ sec) and wind waves

Fri Jul 19

1) By Fri the high pressure system will start lifting north, but will still be centered just ahead of you

- so southwest progress thru 32n/130w will keep you in useful wind, with much lighter conditions just to your right (and slightly more wind to the left)

- average winds along this route will still be in the mid-teens but you can head a bit more to the left/ south-southwest for slightly more wind

- but even down near 30n winds will be struggling to hit 20 kts

2) The long-period SSW swell will finally give way to a shorter – but still 8-9 sec period – NW swell during the day

05: 010-030/12-17 near 31 50n/130w

11: 020-040/12-17

17: 020-040/12-17

23: 020-040/12-17

Weather...Variable cloudiness

Seas 4-6 ft, wind waves with NW to N swell

Sat Jul 20

1) Lingering high pressure will be further removed to the north by Sat, maintaining the gentle NE trades

- wind speeds will still be mostly in the mid-teens

- they may be a bit higher than what is shown below –

2) This may be your “closest pass” to the potential tropical low to the south as it passes thru about 18n/135w

a) if the center of the system is any closer – possibly near 20n – then the gradient will increase, maybe pushing winds closer to the 15-20 kt range

05: 020-040/12-17 near 30 15n/132 35w

11: 030-050/12-17

17: 030-050/12-17

23: 030-050/12-17

Weather...Variably cloudy

Seas 4-7 ft, NW swell (9 sec) and wind waves

Sun Jul 21

1) No big changes in the weather pattern thru Sun – with high pressure solidly in place to the north and a potential tropical low to the south, gentle/moderate trade winds will remain in place

a) any average winds over about 16 kts will increase the likelihood for squally trade showers, especially in the few hours around dawn

b) with the potential for the tropical low to be a bit farther south, I've knocked down wind speeds a bit, but they may settle more consistently in the upper teens

2) The more NE wind regime may put winds too far behind you to remain on a heading close to rhumb line, so I have you heading more westerly for a time

a) any light air left to the north will be up near 32n+, so you have plenty of room to make this adjustment

3) Around this time you may also start to notice shorter, choppier seas as some SE swell mixes in from the tropics

a) combined seas however are still not expected to be particularly high

05: 040-060/10-16 near 30 10n/135 20w

11: 040-060/12-18

17: 030-050/14-18

23: 020-040/14-18

Weather...Variable clouds, chance scattered squally showers, mostly early AM

Seas 4-6 ft, mostly from NW, but mixing SE swell from tropical low

Mon Jul 22

1) With new high pressure solidly in place to the north and that lingering area all but gone around 32-35n, there is higher certainty that trade winds will finally climb into the upper teens and maybe low 20s early next week

a) this will increase the spread/frequency of squally trade showers, especially during the morning hours

b) combined seas will also get another 1-2 ft of chop

2) Given the NE wind regime I still have you heading more west than southwest thru Mon

a) as winds flatten out from the ENE to E later in the week you can turn left and aim more directly for Oahu

05: 030-050/14-18 near 30n/138w

11: 030-050/14-20

17: 030-050/15-20

23: 030-050/15-22

Weather...Variable clouds, scattered squalls, mostly AM

Seas 5-7 ft, shorter ESE swell and wind waves

Best regards,
Faith Eherts

