Regatta Playbook

2025 ILCA 4 & 6 Youth World Championship

Cabrillo Beach Yacht Club, Los Angeles, USA

July 2025

Nodo
Tack like a *LOCAL*.

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Welcome to Los Angeles!

Where the Pacific meets precision.

LA delivers **wind**, **swell**, and **competition**; this is no flatwater cruise.

Venue	Cabrillo Beach Yacht Club
Location	San Pedro, Los Angeles
Regatta Area	Open facing bay, framed by coasts, islands and breakwaters
Climate	Hot, dry, with afternoon thermal patterns



→ Let's break down the spot. Wind, waves, and local effects.

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Spot-ID: Cabrillo Beach

Your regatta, at a glance.

Factor	Nodo Rating (1–5)	Notes
Prevailing Wind		**W** (270° ±10°), consistent and dominant
Average Intensity		**13–14** kt average, 80% frequency, gusts **18 kt**
Wind Consistency		Few shifts, **clean thermal breeze**, like clockwork
Local Influences		**Coastlines** affect wind direction
Current		Virtually **absent** during the day
Wave Conditions		Average **chop** from W, **light swell** from S (15s)

Source: Nodo Research

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The Forces That Shape LA

Understand the two invisible highways that define your race course.



Pacific Wind Stream

- A large north-to-south airflow runs along the US West Coast.
- Created by the **North Pacific High** (a semi-permanent high-pressure system).
- Brings **cooler**, **drier air** that **accelerates** as it **funnels** along the coastline.
- Results in **steady westerlies** and **afternoon sea breezes** in LA.

Pacific Swell Invasion

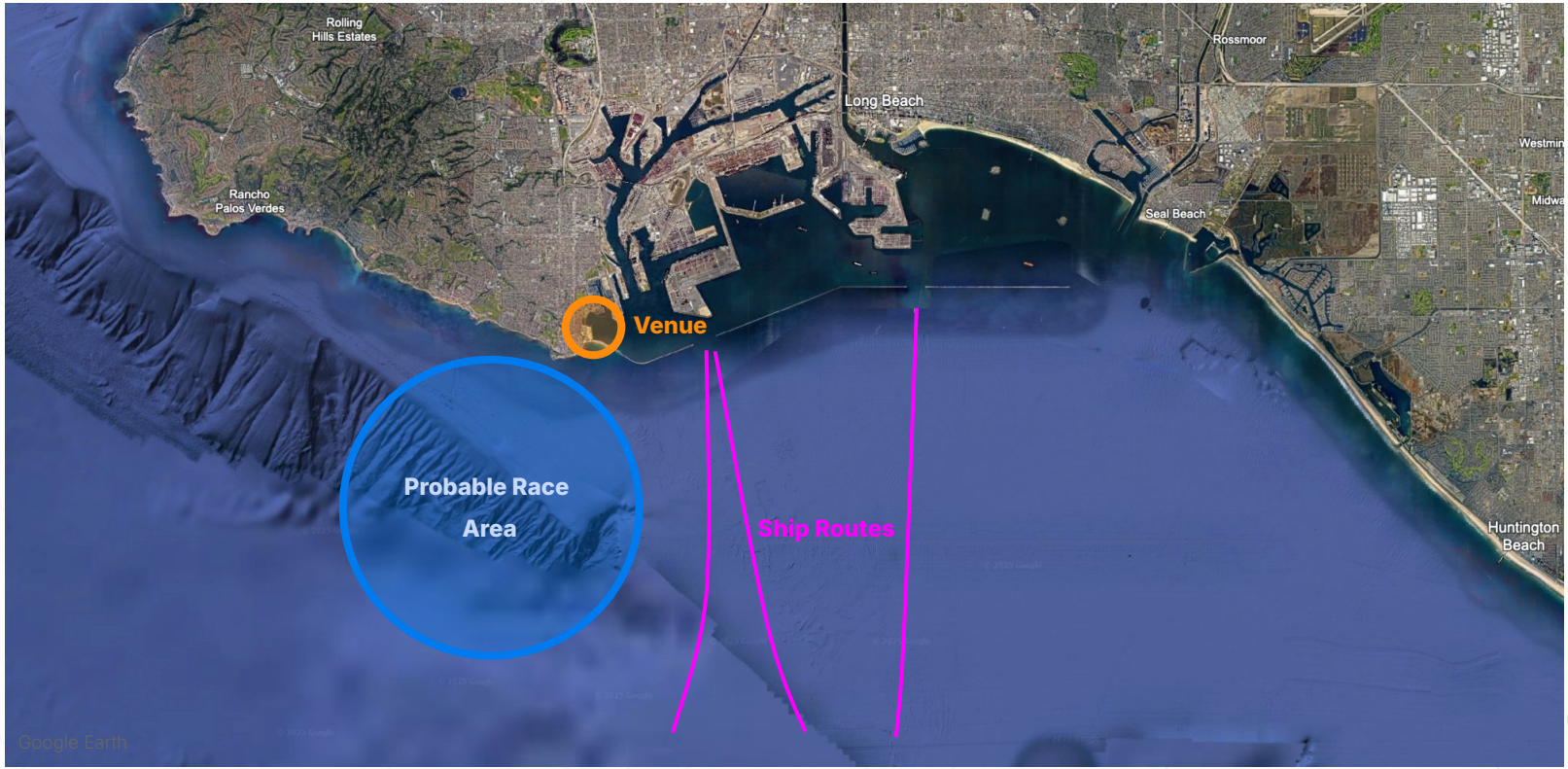
- **Deep offshore Pacific waters** generate **long-period swell**.
- Swell rolls in from the open ocean, generally from SW.
- **Catalina Island** blocks **some**, but not all, of the energy.
- Expect **clean wave lines** and rolling motion inside the bay.

→ Let's get a little closer to the race area.

Source: Nodo Research

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Cabrillo Bay Racing Grounds



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Wind Frequency Overview

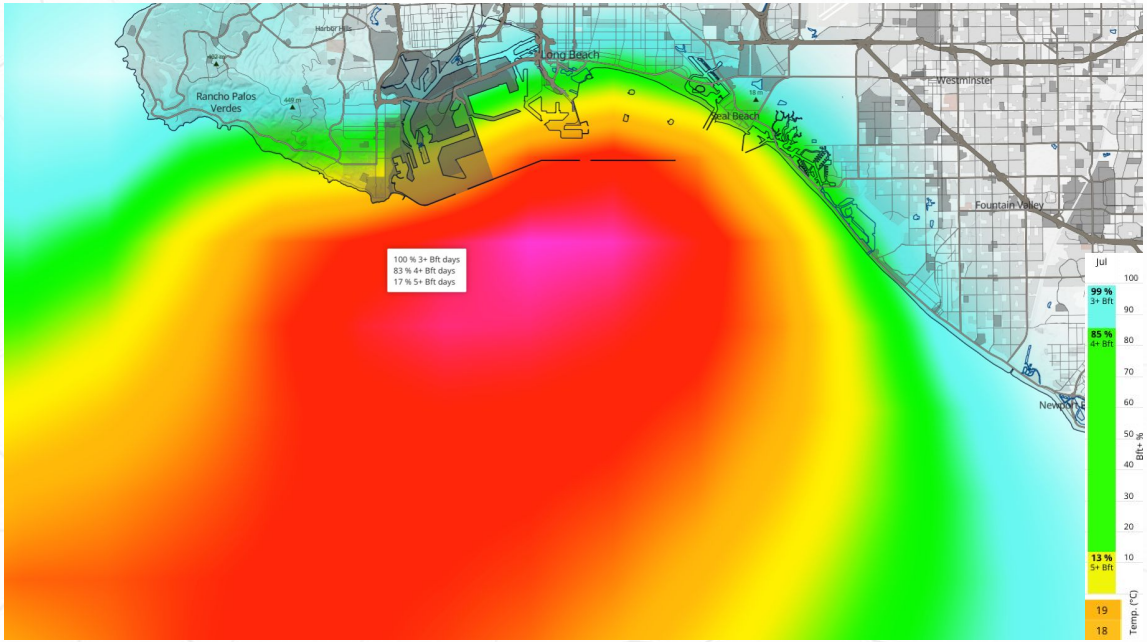
Wind frequency in July, based on multi-year stats.

13+ kn

on 8 days out of 10

Key Takeaways

- 100% of days exceed 3 Bft (9+ kn); **You're racing. No excuses.**
- 83% of days hit 4 Bft (13–16 kn); **Expect medium breeze as your baseline.**
- 17% of days go beyond 5 Bft (17+ kn); **Less common, but don't skip heavy settings.**



Strong consistency likely boosted by LA city heat + Catalina wind funnel + US West Coast flow.

Source: HRRR (3km) US; Windguru; MapTiler; OpenStreetMap

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Wind Rose Breakdown

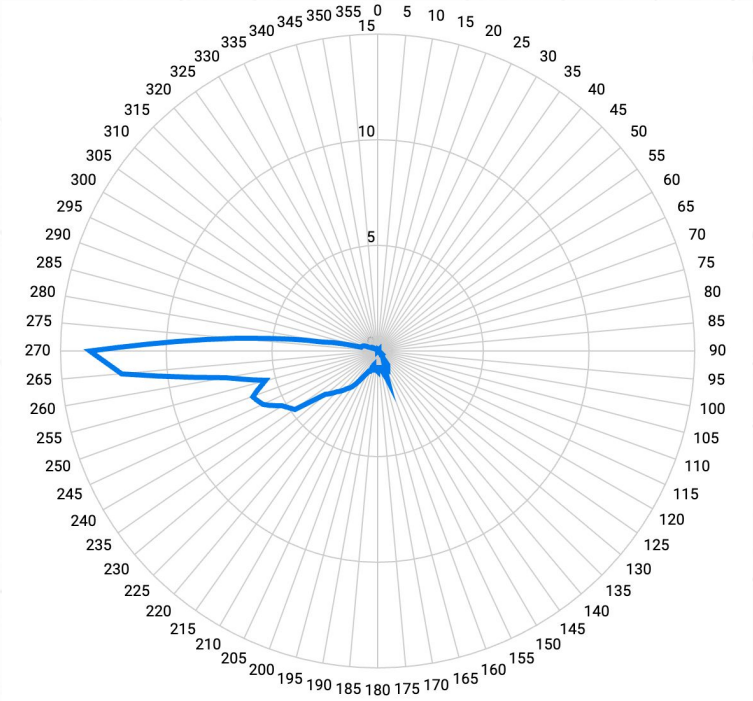
Wind direction frequency in July, ≥6kn, from 10am to 5pm.

270°

wind locks in from the west

Key Takeaways

- Dominant direction: **265°–275°**
- Stable and narrow: perfect for **repeatable strategies**
- Rare shifts = **low-risk** tactical setups
- Stay alert for subtle oscillations, not big swings



→ Let's see how it evolves during the day.

Source: ECMWF IFS (9km) Global

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Note: These data points do not yet account for local effects (islands, breakwaters, obstacles).

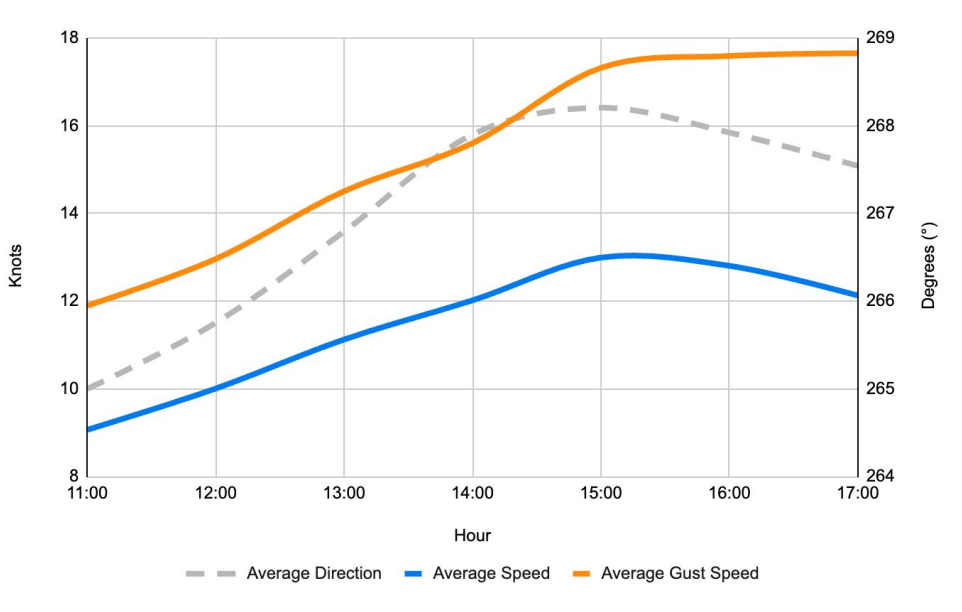
The Western Machine

Los Angeles delivers its punch by mid-afternoon.

3PM
is when the wind peaks

Key Takeaways

- Steady right shift: **~3° clockwise** until **15:00**
- Wind **peaks** between **14:30–15:30**, then slightly fades
- Average wind: **9–13 kn**, gusts climb to **17+ kn**
- Peak gust gap: **+4 knots above average** = explosive moments
- Direction stability: stays locked between 265°–275°
- **Slight late-afternoon drop** → potential rhythm change after 16:00
- Watch for **reliability** early, **punch** mid-day, **decisions** late



Source: ECMWF IFS (9km) Global

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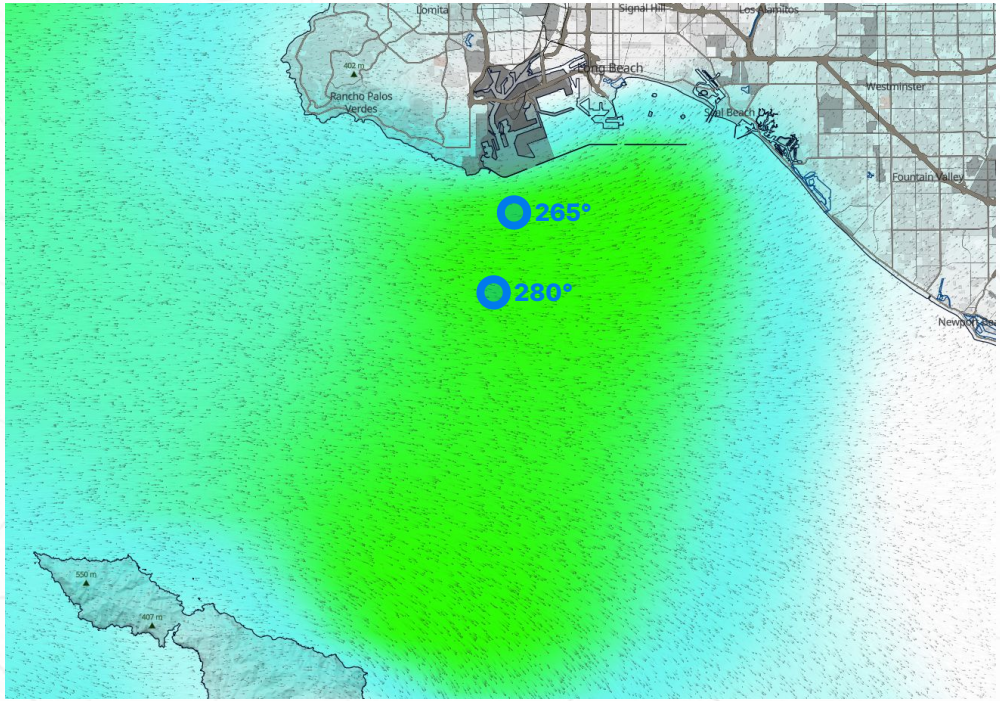
Note: These data points do not yet account for local effects (islands, breakwaters, obstacles).

Geographic Shift: Coast to Island

From 260° near LA to 310° toward Catalina; the course lies around 270°.

+1°/km

wind rotates from shore to sea



Key Takeaways

- **Left side (offshore):**
  ↳ More wind, bigger right shift
  ↳ Longer starboard lift but risk of overstanding
- **Right side (inshore):**
  ↳ Flatter water, closer pressure lines
  ↳ Early headers but possibly less pressure
- **Middle lane:**
  ↳ Safer tactically, but may miss extremes

Source: Zephr-HD (3km)

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Waves & Chop

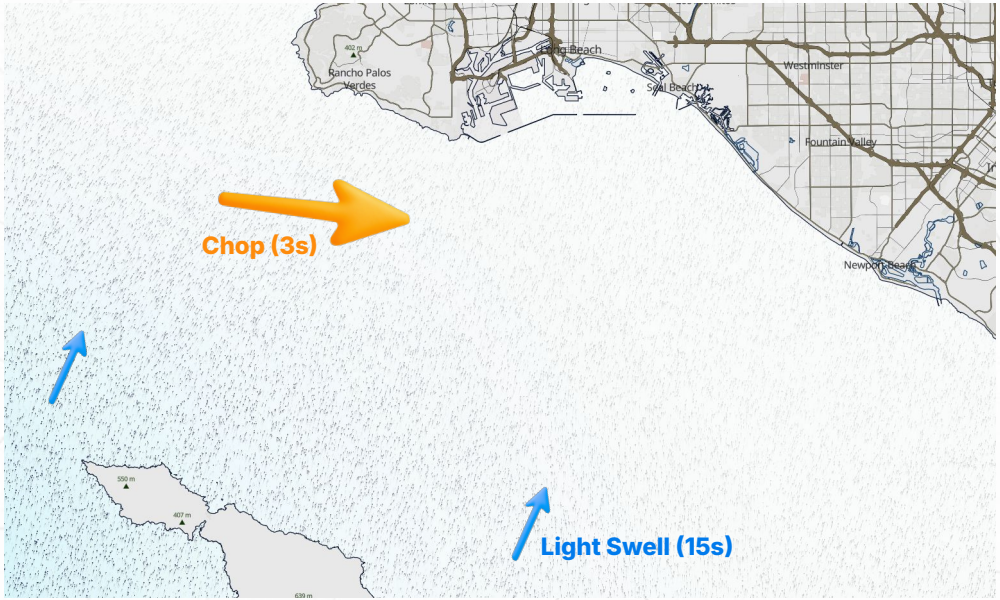
Keep an eye out for two different wave directions.

2–4s

short chop dominates

Key Takeaways

- Chop: **0.2–0.7 m**, **2–4 sec**, wind-driven from **W**
- Swell: **12–16 sec**, weak, from **S** to **SSW,** covered by island
- **Expect bounce**: Consistent wind chop will affect timing and power
- **Stay light & reactive:** Especially in <12 knots, chop kills flow
- Watch for swell + wind sync when heading NE; can boost VMG



Source: Nodo Research; GFS-Wave 25km

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Note: These data points do not yet account for local effects (islands, breakwaters, obstacles).

Before You Race, And After

On the Water – Last Reminders

- Wind builds late morning, peaks around **3PM**, **plan your fuel and effort accordingly**
- Right vs left? **Tradeoffs** exist, play it smart with live observations
- **Chop** and **long swell** may combine, expect acceleration on starboard tack

Off the Water – Recovery & Routine

- **Hydrate**: it's hot, dry, and you're sweating more than you think
- Local food = heavy: **balance** it with veggies & salts
- **Sleep & routine** matter more than ever in longer events; same time, every night

Tack like a local.
Then live like one.

Windguru - Los Angeles - Cabrillo Beach

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