

# Hawaii Surf Forecast

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## Main Forecast

### Summary

Complex mixed-period regime through Oct 3–5. Early Oct 3 (local morning) sees a heavy short-period east/ENE wind swell (E/ENE 6 s, **10–11 ft** Hawaiian) combined with moderate N/NW groundswell energy (N 10 s ~**8.5 ft**; NW 11 s ~**9.2 ft**; NNW 11 s ~**6.6 ft**). A longer-period SSW/S component (17 s / 15 s) is present but modest. Winds begin calm (170° at 0 kt obs) but a strengthening subtropical high and upstream lows will build trades later in the period — best, clean windows are early mornings. Expect north-facing breaks to be the primary places with solid surf; east exposures will be large but wind-affected.

### Details

- ENE / E wind swell: two strong short-period east components (E **11.2 ft** @ 6.0 s and E/ENE **7.9 ft** @ 7.0 s). Arrives/peaks 2025-10-03T18:56–19:20Z (~08:56–09:20 HST Oct 3). This is local trade-wind/wind swell energy — steep, close-spaced sets, quick to respond to local winds. Expect the bulk of this energy to be strongest Oct 3 morning and gradually trend down as trades fluctuate through Oct 4–5.
- NW / N / NNW groundswell cluster: NW **9.2 ft** @ 11 s (~315°), N **8.5 ft** @ 10 s (~360°), NNW **6.6 ft** @ 11 s (~337°). Arrive/peak ~2025-10-03T19:20–19:26Z (~09:20–09:26 HST Oct 3) as well — these are the cleaner groundswell components relative to the short-period east bump. Periods in the **10–11 s** range will produce punchy, pushing faces on exposed north and northwest reefs through Oct 3–4. Expect a gradual persistence/reduction through Oct 4; model fields and SST/

pressure analysis indicate a larger long-period NW/NNW pulse building later (see OUTLOOK).

- NE / ENE short bump: NE **6.6 ft** @ 6 s arriving ~09:26 HST Oct 3 — contributes additional wind-swell clutter on windward shores.
- SSW / S longer-period energy: SSW **5.9 ft** @ 17 s ( $\approx 202.5^\circ$ ) and S **4.6 ft** @ 15 s ( $180^\circ$ ) arrive/peak  $\sim 2025-10-03T19:30Z$  ( $\approx 09:30$  HST Oct 3). Periods are long for the size — this will wrap into exposed south/southwest-facing points and can produce cleaner, peaky lines at exposed SW reefs, but overall size is modest compared to the north/E energy.
- Timing summary (local HST): primary pulse of mixed energy arrives and peaks in the early morning of Oct 3 ( $\approx 08:45-09:30$  HST). Expect the short-period east bump to be most immediate and wind-sensitive; the **10–11 s** N/NW energy will hold through Oct 4 with a gradual decline. A separate, deeper long-period NNW/NW swell is forecast to build behind these systems late in the extended window (see OUTLOOK).
- Wind/pressure: observed calm ( $170^\circ$  at 0 kt) now, but the synoptic pattern supports strengthening E/NE trades later in the period (15–25 kt potential). That will increase onshore/chop on east and southeast exposures and make the east swell very wind-affected outside early morning hours.

NORTH SHORE (O'ahu) - Expect solid, organized north-to-northwest surf through Oct 3–4. Combined N (10 s / **8.5 ft**), NW (11 s / **9.2 ft**) and NNW (11 s / **6.6 ft**) components produce consistent heads-high to overhead faces on exposed reefs. - Typical exposed lineups (Pipeline / Ehukai / Hale'iwa): expect faces generally in the **8–12 ft** Hawaiian-scale band at peak sets on Oct 3 morning; sets will be powerful and fast because periods are **10–11 s**. Pipeline and outer reef sections will see the most hollow, critical waves; Hale'iwa/Central North Shore will run solid overhead. - Timing: peak energy present in the early morning of Oct 3 ( $\approx 08:45-09:30$  HST) and holding into Oct 4 with a slow fade. Cleanest windows will be early mornings before trades build; afternoons will trend more onshore/crossshore and bump the faces. - Late Oct 5 signal: pressure/SST charts show a deeper NNW/NW storm developing farther north — long-period (**16–20 s**) energy is likely to begin influencing the North Shore late Oct 5 into the 6–7 day window. Within the Oct 3–5 window expect initial rise of longer-period energy late on Oct 5 (small but noticeable change in wave pulse character) — that can increase power and set spacing

if it verifies. - Hazards: strong currents, large sets, reef/shorebreak hazards at shallow takeoffs. Only experienced surfers at the most exposed spots.

## South Shore

- The SSW (17 s / **5.9 ft**) and S (15 s / **4.6 ft**) components give a modest, longer-period south-swell signature on Oct 3 morning ( $\approx$ 09:30 HST). Exposed southwestern reefs (Makaha wrap, parts of Ka'ena/Leeward SW points) will see the best response.
- Expected sizes: exposed south/southwest reefs — **2–4 ft** Hawaiian-scale faces with occasional chest-to-head sets at most; protected south coves (Ala Moana, Diamond Head) see smaller longboard-friendly **1–3 ft** conditions depending on local refraction.
- Quality: favorable only if trades are weak; once the east trade bump ramps up, south-facing breaks will be cluttered with cross chop. Best windows will be early morning Oct 3–4.
- East swell (E/ENE 6 s /  $\sim$ **10–11 ft** Hawaiian) will not help south-facing lines — it creates a steep wind swell on windward shores that can refract into south/east corners as short-period junk if winds align.
- Hazards/notes: SSW 17 s is long-period for its size — it will produce powerful but widely spaced sets where it focuses; don't be fooled by smaller average heights.

OUTLOOK (beyond Oct 5) - High-confidence: a strengthening mid/high-latitude low will generate a larger, longer-period NNW/NW groundswell arriving after Oct 5 (best energy Oct 6–7 in the upstream charts). If the developing low tracks through the warm SST corridor north of the islands (30–34°N, 180–170°W) it will deepen and produce **16–20 s** energy with Hawaiian-scale North Shore faces in the 8–12+ ft range at peak — this is the primary pulse to watch past the Oct 3–5 window. - Trades: the subtropical high east of Hawaii is forecast to strengthen; expect E/NE trades to increase late in the forecast period (15–25 kt). That will produce persistent wind swell and onshore chop for east-southeast exposures and may spoil the east swell unless there are morning offshore windows. - Tropical influence: Tropical Storm Octave (southeast of the islands in modeled fields) can add a modest SSW/S pulse later in the 5–8 day window if it holds intensity and westward motion. That would be a secondary south component — currently moderate confidence and likely modest size unless Octave intensifies or comes closer. -

Bottom line through Oct 5: early-morning sessions (Oct 3–4) deliver the best quality — cleanish north-northwest groundswell with a very active short-period east wind bump that will make east beaches big but messy. Monitor buoy and model updates late Oct 5 for the impending long-period NNW/NW pulse; trades are likely to increase and favor earlier sessions for cleaner conditions.

Confidence: moderate-high for the mixed short/medium-period energy arriving Oct 3 and holding through Oct 4; moderate for the timing/size of the larger long-period NNW/NW pulse that should begin to influence the North Shore after Oct 5 (depends on exact storm track/intensity).

## South Shore Forecast

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South Shore — short-range forecast (Hawaiian scale) for 2025-10-03 through 2025-10-05 Quick summary - Primary numbers are given in Hawaiian scale (as requested). Rule of thumb: Hawaiian  $\approx$  roughly half the face height you see from the beach; for quick conversion multiply Hawaiian by  $\sim 2$  for approximate face height. - Swell energy is a mixed bag: unusually large easterly energy is present but only wrapping into the South Shore modestly; a more canonical SSW / S component is also present at moderate levels. Light winds expected at the moment — that keeps conditions dependent on swell period and local wind evolution. - Overall surf: expect inconsistent but punchy lines at town breaks and Ala Moana sections. Shape and power will be strongly period-dependent (periods were not provided in the data you gave — see the swell-period discussion below).

Swell input (from your data) - E swell: **11.2 ft (Hawaiian)** — moderate effect on South Shore (primary impact to east-facing spots; partial wrap to south exposures). - E swell: **10.5 ft (Hawaiian)** — moderate effect (same behavior, likely a separate E pulse or nearby-energy component). - SSW swell: **5.9 ft (Hawaiian)** — moderate effect on South Shore (south to south-southwest energy, more directly aimed at exposed south-facing reefs). - S swell: **4.6 ft (Hawaiian)** — moderate effect.

Important note on periods - Periods were listed as 0.0s in your input. Period is the single most important number for how these heights translate to real waves at the beach: - If periods are short (under  **$\sim 9\text{--}10\text{s}$** ): this is wind/wind-swell style energy — punchy, fast, choppy waves with less organized heads and weak longboard-style rides. Local breaks and reef tangles can be messy. - Mid period ( **$\sim 10\text{--}14\text{s}$** ): better shape and power; longer, more organized faces and stronger push into reef breaks. - Long period ( **$>14\text{--}16\text{s}$** ): true groundswell behavior — more energy per foot, longer rides, and more ability to wrap into sheltered southern coves. Given the relatively large Hawaiian numbers for the E component, long periods would translate to noticeably larger, more powerful conditions than the same heights at short period. - Because periods are unknown, treat the forecasts below as conditional: quality and hazard scale increase with period.

Winds & weather (based on provided wind: 170° at 0 kts) - Reported wind vector: 170° at 0 kt — effectively calm from the S by SSE. Calm is favorable; however any south-to-southeasterly breeze that develops will be onshore for the South Shore and degrade faces. Conversely, a light north to northeast land breeze would clean things up. - Clouds/precip not specified — check local metocean before heading out. If an easterly tool (trade surge or Kona trough) sets up, expect variable, sometimes stronger east-southeast winds that can back toward onshores for south-facing spots.

Timing and evolution (Oct 3–5) - Oct 3 (Fri) — Building to early peak - Expect swell energy to be present and building in the morning into the afternoon as the easterly pulses organize and the southern components arrive in the swell window. If the E energy has mid-to-long period, expect noticeable increases through the day; with short period, the day will be bumpy but increasing. - Waikiki/Canoes/Queens: small to chest-to-head-high Hawaiian (**2–4 ft H**) in focused sets if periods are mid/long; if short-period, closer to chest-high Hawaiian (**2–3 ft H**) but a bit punchy and inconsistent. - Ala Moana Bowls / Kewalos: more punchy, peaky, and a bit wind- or tide-sensitive — expect bowls to fire on the better sets. - Oct 4 (Sat) — Peak day (most likely) - This is the highest-probability peak window for combined E + SSW/S energy on the South Shore. If periods are in the mid/long range the south-facing reefs will see the best, most powerful sets of the period. If periods are short, the size will still be noticeable but the surf will be bumpy and more wind-affected. - Central town breaks: inconsistent but with occasional head-high-plus faces for competent surfers at exposed spots and more forgiving lines further inside the cove. - Timing: morning should be cleaner if winds stay calm; if a southerly breeze builds midday it will push chop into the beaches and shorten the faces. - Oct 5 (Sun) — Starting to drop, but not done - Gradual fading. South/S SSW energy will taper first; the easterly energy may linger longer depending on its source but will generally become less organized. Shape improves as conflicting components diminish, but size falls. - Best windows likely early AM if winds remain light.

Break-specific notes (South Shore town spots; Hawaiian heights given)  
General: because the E components are large, east-facing breaks  
(Waimanalo, Makapuu) will see relatively bigger impact than usual and could

be the most powerful spots. South-facing town breaks will feel the SSW and S energy more directly.

- Waikiki — Canoes / Queens / Fort
- Expected sizes: 2.0–4.0 **ft H** through the peak (Oct 3–4), easing toward 2.0–3.0 **ft H** on Oct 5.
- Canoes: tends to be the softest, longest ride of the group — good for longboarders and less experienced surfers when the power is moderate. With long periods, look for fuller shoulder lines; with short periods, expect quick, punchy lumps.
- Queens: faster, better for performance boards when the SSW component gives a cleaner takeoff zone. Expect steeper faces there during Oct 4 peak sets.
- Fort: closes out quicker and can get hollow on the bigger sets — best for experienced surfers when the swell is larger or long-period.
- Tidal note: mid to mid-high tides generally produce the more rideable lines at Waikiki; very low tide can be mushier inside.
- Ala Moana Bowls / Magic Island / Kewalo
- Expected sizes: 2.5–5.0 **ft H** at exposed sections during peak energy (Oct 4), with punchier, reef-influenced peaks.
- Ala Moana Bowls: will be the most critical indicator of power. With mid-to-long periods, expect strong, hollow bowls and fast, short rides — faster takes off and steeper closeouts. Best for experienced/advanced shortboarders on the peak day.
- Kewalo: will see some punch and is tide sensitive — mid-to-high tide tends to smooth the lines; low tide can expose cobbles and make it territorial.
- Magic Island sections can be inconsistent but will catch some of the easterly wrap and produce fun mid-sized rights when the SSW eases.
- Other town spots / small reefs (e.g., Sans Souci, Point Panic area)
- Expect a mix of **2–4 ft H** depending on local exposure and tide. Points and small reefs will be most affected by the SSW/S component; east wrap will help some of the more easterly-oriented coves.

Hazards & practical notes - Period uncertainty means you must read the sea on arrival. If the waves look powerful and organized (long-period signature), treat set waves as larger than they appear — they carry more punch and stronger currents. - Mixed-energy days often create strong, shifty currents and unexpected shore breaks. Rips will be active, especially near jetties and channel edges at Ala Moana. - If southerly winds rise (even 10–15 kts), expect onshore junking conditions at top-of-the-water south beaches; early morning sessions will usually be the cleanest. - Skill-level guidance: - Beginners/longboarders: Canoes and inner Waikiki on the smaller end of the scale, early AM on Oct 3 or 5 if size is down. Avoid exposed reefs during peak energy. - Intermediate: Queens, protected sections of Ala Moana on smaller windows; choose mid-tide for cleaner faces. - Advanced: Kewalo and outer bowls on Oct 4 if periods are mid-long; be prepared for heaviness and strong currents.

Comparison to recent and normal fall conditions - Typical fall on the South Shore (your provided climatology): S to SSW is the primary swell direction and sizes generally **1–3 ft H**, with the south season winding down. - How this event compares: - S/S SSW components (**5.9 ft H** and **4.6 ft H**) are above the typical fall norm (these SSW/S values are higher than the **1–3 ft H** typical range). That means stronger-than-normal south energy for early October. - The two easterly pulses at **~10–11 ft H** are unusually large for easterly input that is described as only having a “moderate effect” on the South Shore. Normally an easterly at that size would dominate east-facing exposures; their moderate effect on the South Shore suggests they are largely oriented E (favoring east shores) and are only wrapping into southern exposures. In short: this is a larger-than-normal mix for this time of year, with an atypical E-component adding complexity. - Recent days prior to Oct 3 (based on the climatology you referenced): likely smaller, more typical fading south swells. This event therefore represents a short-lived bump in energy above seasonal norms — especially on Oct 4.

Actionable checklist before you go - Check actual swell periods on a local buoy/swell model — that will change everything about how the heights feel at the beach. - Aim for early morning sessions (before any daytime sea-breeze or southerly onshore develops). - For reef breaks, check tide stage: mid to mid-high is generally safer/cleaner for most town reefs; low tide can expose

hazards. - Bring a leash appropriate for the size and be wary of stronger-than-expected shorebreaks and rips.

Bottom line - Expect a complex, above-normal swell mix through Oct 3–5. Oct 4 is the most likely peak day with punchy sets at Ala Moana and head-high-plus faces at exposed town reefs if periods are mid-to-long. If periods are short, size is still noticeable but the surf will be bumpier and less organized — favor protected inner breaks and early morning sessions. Always recon the lineup on arrival and respect the currents and reef hazards on mixed-energy days.

## Daily Forecast

Oahu — Surf Forecast for 2025-10-03 (NW swell)

Quick summary - NW-ground swell is the driver today. Best sessions early before winds build. Expect the North and West shores to pick up most energy; South and East will be small.

- 1) Current conditions for the day - Swell: NW swell arriving/peaking overnight → solid energy on north- and west-facing breaks. - Morning: cleaner, lighter winds — best window. Afternoon: trades increase and make many spots choppy.
- 2) Wave heights (Hawaiian scale) - North Shore: **3–4 ft** Hawaiian (roughly **6–8 ft** faces) — powerful, hollow at the reefs. - West/Leeward (Makaha, Yokohama): **2–3 ft** Hawaiian (**4–6 ft** faces) — solid, rideable lines. - South Shore (Waikiki/central south): **1–2 ft** Hawaiian (**2–4 ft** faces) — small, inconsistent. - East/Windward: **1–2 ft** Hawaiian (**2–4 ft** faces) — minimal from this NW direction.
- 3) Wind & weather - Morning: light/variable winds 5–10 kt — best and cleanest window. - Afternoon: NE trade winds increase to 10–18+ kt — cross-shore to onshore for many north/west spots, creating chop. - Sky: Partly

cloudy, warm (mid-70s to low-80s°F). Typical trade wind marine layer possible early.

- 4) Tide info (surf-relevant guidance) - Best tide window: mid to high tide generally favors North Shore reef breaks today (helps hold sections and reduce exposed reef). Some point breaks on the west prefer mid tide for longer rides. - Early low tide can expose shallow reefs and make peaks punchier/hollower—use caution at reef-heavy breaks (Pipeline, Sunset). - Check local tide chart for exact times if you need precise session planning.
- 5) Best spots today (and for whom) - North Shore (advanced to expert): Sunset Beach (powerful rights/lefts), Ehukai/Pipeline (if the swell peaks big — only for experienced surfers), Rocky Point — prime for experienced surfers when **3–4 ft** Hawaiian. - West/Leeward (intermediate–advanced): Makaha, Yokohama — more forgiving than the North but still powerful on this swell. - Mid-level/beginners: If you're newer, look for protected breaks on the South Shore (small waist-high conditions) or inner beach breaks with lifeguards — avoid exposed reefs on the North. - Always check current conditions, rip activity, and lifeguard advisories before paddling out.
- 6) Changing conditions through the day - Peak swell energy likely overnight into early morning — best, cleanest window is early AM. - Expect swell to slowly ease through the afternoon while NE trades build, producing more chop and onshore cross-wind on north/west spots. - If you want cleaner lines and less wind, aim for first light to late morning.

Actionable tips - Go early (first light) for the cleanest conditions and best tide window. - Reef caution: many North breaks sit on shallow reef — wear booties if you're unsure and don't paddle out alone on big days. - Bring the right board: mid-to-large guns for heavy north/reef breaks; shorter boards fine at protected west or small south spots. - Check local webcams and lifeguards on arrival for final read.

If you want, I can give spot-specific tide times and recommended launch windows for a specific beach on Oahu — tell me which spot.

## Historical Comparison

Compared with **forecast\_20251002\_212248** generated on  
2025-10-02T21:22:48.663174:

- Confidence down 0.01 since the previous run.

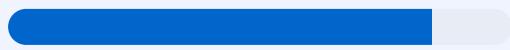
## Forecast Confidence

Overall confidence: 0.6/1.0



### Confidence Factors

Data Freshness: 0.8



Source Diversity: 0.3



Source Agreement: 0.7

