Surfing prone

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Bob Green (bgreen@dyson.brisnet.org.au)

Contents

There is no right way to surf prone. Wave, board design and surfer preference all influence how a board is ridden. The following text attempts to capture this diversity and the experience of those who ride the range of boards that can be ridden head first.

1 Take-off variants

Often with lower volume, prone boards liken a launching pad, a wedgy peak or seem irregularity, particularly in weaker waves. Angled takeoffs can generate speed in waves where there is little power at the wave base.

1. Two arms holding board (body on board)
2. Two arms holding board tail (body trailing off board)
3. Two arms paddling – knee/surfboard style
4. One arm on board, other arm paddling + kicking.
5. Sink tail, release and kick.
6. Forward trim no-paddle free fall.

   As others mentioned above, kickboard style with neutral buoyance boards, on the boards with float then I used my wave positioning, swim fins, and usually a little bit of arms for one last pull in and fine tune positioning for the curl/peak takeoff (Rod Rodgers).

   I started riding at Pipe in 1972, and I learned right away that it was hard to make the drop, make the turn, and get out into the flats. The challenge was that I didn't have the projection with a paipo board when I made the drop. I learned that I had to have a tremendous amount of speed when I took off and that I had to have my angle set. I learned how to position myself so that I was exactly at the perfect place when I took off. Once I figured it all out, making the drop at Pipe was easy. The waves there break on a shallow reef close to shore, so the faces and the barrels are almost always smooth, which made it easy, too, for a paipo board. Once I made a drop, I'd bury my inside rail to make a turn and ride up into the barrel (Sean Ross).

Sean Ross "... the board is pointing where I want to go although my body isn't. My legs are dragging to slow myself down for the turn", Second Reef Pipeline. Photo by Leroy Grannis

2 Duck dive

1. Weight forward and sink nose, push up from tail.
2. Hold board across the body and duck dive with it.

   Imagine holding the bellyboard across your body then put both hands on the same (further) rail and roll the board until it touches your forearms then you can angle the board to judge a depth of dive to suit the oncoming wave (John Heath – UK bellyboard).

   It is very easy to get out in any surf. I swim on my front with the board held across in front of me and use like the diving plains of a submarine to control my depth.The board is parallel, it is just a matter of duck diving. The board is only marine ply so it sinks easily (Richard Whiting UK bellyboard).

3 Arm/Hand positions while surfing

Arm positions may be fixed for some, but usually is frequently changing in response to the wave. This is may be a minor movement (pulling up on a rail on takeoff) or a bigger movement. These are mostly not conscious decisions but a dynamic process.

1. No rail or deck hold. Arms by side on board.
2. No rail or deck hold. Arms out to the side, off the board.
3. Both hands parallel holding the nose.
4. Both hands on the deck.
5. One hand forward (superman style) other hand on rail or by side.
6. One hand forward, other hand out to the side, off the board.
7. One hand forward, other hand on the rail (can be used for leverage).
8. hands on single wood handle across deck
9. hands on flexible handle across deck
10. hands on Flexible handle on sides

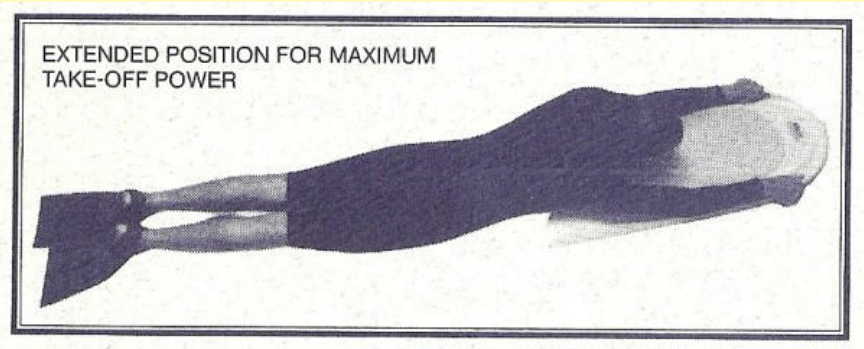
3.1 handles

I think the interaction between the handle and the fins to be very important. The handle to hang on to with your forearms on the deck of the board creates a whole bunch of torque for turning and making any number of adjustments while underway on a wave (in all kinds of directions, both up and down, side to side, and everything in between. Similar to the feeling of traction on a slippery surface but more three dimensional: push, pull, up, down. (See the rock climber going up the rock using every surface to move forward.) This solid connection with the board allows the rider to "hang it all out", as it used to be said, to put yourself in positions on a wave without a solid connection puts the rider struggling to hang on. With fins on the bottom and a solid handle you can place the fins at extreme angles to the face of the wave, cutting into the face and you get pulled along deep in the tube hopefully! (Jeff Quam)

When you take off on big waves, you need all the speed you can get to catch the wave and make the drop, so I use my outside hand to paddle as I'm kicking with my fins. If I'm going right, I paddle with my left hand. If I'm going left, I paddle with my right hand. I added rope handles to my boards because my non-paddling hand would slip off the nose, rather violently at times, and I needed something to hang on to. I also attach a bodyboard leash to the handle in case I wipeout or if I need to bail out (John Galera).

I can see how the handle allows a longer board to be ridden without having to reach and stretch out to much for the nose (Keith Usher).

If you look real close at the first 2 frames you will see that almost a half of the body is off the board, tail is drifting laterally,but being controlled by the pressure from the handle and the outside rail... it's a fun experience and can be more extreme depending on the situation, ends up like riding a large hand plane sometimes, and can really set you up nicely for barrels and whatnot. After that the body pulls back levelly onto the board for the trim/glide with the board being adjusted to the wave face from the counter pressure of the handle, and arm on the outside rail. (Robert Moynier).



"I can catch a wave beside a malibu, because I push the board out in front so you have 12 to 18 inches out in front of your hands. So if you are 6 foot you become nearly 8 foot and I have really old giant Continental flippers..." Photo courtesy Dick Ash.

Sean Enoka, outside Waimea.

Lewis Cawsey and Greg Vaughn.

Source: Left: photo courtesy Jarrett Liu, Right: Surfabout: Australasian Surfer (1965) 3(1).

Superman style. John Waidelich, Sunset Beach 1964.

John Waidelich, Portlock 1963.

Source: Left photo by Val Valentine: Unknown, Right: photo by Tim McCullough.

Jeff Callghan, Winki 1969.

Bellybogger in action.

Source: Left photo by Kerry Carson, Right: photo Surfing World 1978, 27(5).

Jarrett Liu, Malolo 'flying fish' style.

Jarrett Liu, Malolo style.

Source: Photos courtesy Jarrett Liu.

Harry Akisada, Makaha.

Michael Drury, banking with arm to side, c.1976.

Source: Left: photo by John Galera, Right: photo courtesy Michael Drury.

Sean Ross, Sunset - arm outstretched to side.

Mike, 2006. Arms parallel by side.

Source: Photo Jeff Devine, courtesy The Surfers Journal, 33(6), 2024,
Right: photo Hawaiian Line International.

Jeff Day, Cronulla, 1960s.

Barry Hutchins, Garie Beach c. 1965.

Source: Left, photo by Rick Shapter; Right: photo courtesy Jeff Day.

Unknown

Jayne Seymour, hands on the nose at Rote.

Source: Left: photo by Jeff Chamberlain, Right: photo courtesy Jayne Seymour.

Bob Green, Rote.

Keith Usher, G-Land.

Source: Left: photo by Federico Vanno, Right: photo by Dave Thomas

Don Boland, hands on deck.

Shaun Rosen, J-Bay - one hand on the deck

Source: Left: photo by Roslyn Donohue, Right: photo courtesy Shaun Rosen.

Richad Safady, hands on the deck.

Jeff Chamberlain, hands on the deck.

Source: Left, photo by Thomas Kampas, Right: photo courtesy Jeff Chamberlain.

John Galera holding rope handle, Ala Moana.

Jeff Quam with wood handle.

Source: Left: photo by Neal Miyake, Right: Photo courtesy Jeff Quam

4 Body positioning

Body position is typically relative to board length and riding style. Boards that are 4' and under, are often ridden with the upper body over the front of the nose, like a cantilever.

4.1 Legs/hip variants

Just as a rail acts like a fin, so can a swim fin (flipper), particularly on a steep drop. While hips can drive the board in turning, legs can be used to increase or reduce drag in the wave, but also raised or lowered on the board to vary speed.

> .. the angle of a leg or a foot (and swim fin) may be used as an aid for turning and decreasing or increasing board speed. In other instances a rider can extend their legs and swim fins to create additional planing surface and speed (and some swim fins are better or worse at this). It is easy enough to observe that some riders are not able to achieve speed because some portion of their legs create drag in or on the surface of the water (Rod Rodgers).

1. Two legs on deck.
2. Two legs dragging in wave face.
3. One leg on deck/one up – release/drag.
4. One leg on deck/one in the water to turn.
5. No legs on deck (weightless drop).

Jason Grant, leg in the face.

Ian Anderson, legs adrift, Yamba.

Source: Left: photo courtesy Jason Grant, Right: photo by Jodie.

Bob Green, leg unweighting, J-Bay.

Bob Green, leg in the lip.

Source: Left, photo by Janelle Green, Right: photo by John Kovar.

5 Some thoughts on body position

5.1 Adam Baldwin

I take off as normal, like a bodyboard. Helps get the position of the take off the best. But then I have been sliding myself right up the board so my chin is over the front of the board and about 15- 20 cm 5-8 inches off the surface of the wave. And I'll leave my arm back beside my body or out at an angle like a set of wings. Then the combination of the bottom contours and fin placement, (see details about bottom contours and fin placements below) allows me to come off the bottom and carve without touching the board, all with my chin just off the water. But, if you hit a trim line through a section it's dead, set, "cosmic". You feel like a sea bird gliding across a swell harnessing the lift of the air in front of a wave. You can get up into the lip and use your arms to manoeuvre back onto the wave if you get a little caught up. I've seen matt riders use a similar "trim" technique but nothing out there with someone on a bellyboard/paipo. Is anyone else doing this, can you visualise what I'm talking about.

... surfing the much more neutrally buoyant, thinner, smaller area paipo. ... this one I have pressed from scratch and has two extra layers of Paulownia. Which gives the board a stiffness and sturdiness that allows you to lever the edges into the steep wave face and create a distinctive hold something close to similar to an actual fin.

... I have been riding which has absolutely zero rocker is completely straight as you can see from the pictures it was made from a broken Tom Wegener surfie. With this size and shape it ends up being used rather similar to a kickboard when doing swimming training, you can grip the little curved sections at the front and really lever back against your inside elbow. It also means that you can do proper bottom turns using the arch of your body as well as lever inside edge with your elbow. You can actually go straight at the beach or even fade and then come off the bottom with a driving speed that allows you to set a line, in far more critical sections than some of the longer more flexible paipos (there is still flex in the ones I'm making but just a stronger stiffer flex.) that I have seen previous to this.

But the idea of being able to change lines extend your body and arms for extra speed as well as stall to get into really steep sections is really exciting. I really believe these things are more versatile and stupidly fun way to ride waves. Not to mention that I have managed super late, beyond vertical drops and still hold edge, bottom turn and set a line.

5.2 Thomas Haugh

I designed the T-Belly to be ridden from a position behind the center. To understand this, you have to understand my design process. My designs are purposeful, and by that I mean each design element has a purpose. Design elements are considered in terms of how they impact other elements, with the goal of achieving a balanced, integrated design. One consideration I always make is the relationship of the rider's center-of-mass (COM) with the board's center-of-buoyancy (COB). From research I have reviewed, the COM for a human male is about 51% of body height measured from the ground up (just above the navel. Females have a slightly lower COM). Without a way to measure COB, I make the assumption that it is close to the board's COM, which my shaping software does measure. I believe that maximum planing efficiency occurs for a prone-ridden craft when the rider's COM is located over the boards COB, AND when that point is somewhere in the rear third of the bottom. Why the rear third? Because you want to minimize wetted surface to reduce drag.

One design goal for the TB was to minimize the need for the rider to make large positional adjustments while riding. I started with, what for me, is the ideal rider position on the board (tailblock mid-thigh, elbows resting on deck and hands gripping nose), and then designed the foil (flow of volume from tail to nose) to achieve the ideal Rider COM to Board COB. Casual observation of the TB foil and outline reveals that location to be just behind center on the G2 and slightly further back on the G3 (as a result of shifting the wide-point back). Because of this design, the TB accelerates immediately and achieves maximum planing efficiency quickly. Moving forward more than an inch or so while riding results in no further speed increase (but does release the fins!).

Looking at the typical boogie board, it is easy to see that both max width and max thickness are forward of center, which is where the boogie boards COB is located. It makes sense to me

that these craft will plane best when the rider is in an extreme forward position (navel forward of center). I believe this is true for belly board shapes with a similar volume distribution and COB location. In fact, look at your favorite prone-riding craft, and locate the position where you find the board planes best. Chances are your navel will be within an inch or two of the board's COB. Furthermore, this "sweet-spot" varies from shape to shape, and I believe each rider discovers this "sweet spot" through trial and error.

5.3 Ted Hon

The superman style is useful on the HPD to get weight far enough forward to prevent the board from bucking; Paul says to trim forward until the board accelerates, then trim back a tiny bit onto the balance point. The only other way to get the same trim on the HPD is to scoot forward with both hands back and your face over the nose - a sketchy position that seems like a invitation for busted teeth. The superman position on the standard HPD allows the back hand to lever the board up to set the rail. Interestingly, the new HPD (I forgot the name) with more parallel rails rides very well with bodyboard (inside elbow bent 90 degrees) style. Superman style on a floaty, skegged board like the Austin is just style. Superman style on a narrow, domed board like the Malama Kai is a recipe for falling off.

5.4 Jarrett Liu

... this freehand-style (malolo-style) came in to play where I learned to use my body weight (Opu) stomach to shift, turn and stabilizing certain part of the board with my weight where I can use freehand style of looking like I'm bodysurfing on a wave. This unique "malolo-style " had made me and a wood board become one, I've learn to control my body to be only 2/3 from the tail to middle

5.5 Sean Ross

As far as position on the board I do move it around a bit, whether it's to set up for a turn or get more speed or to slow down. I slide the board back under me on the take off, not enough resistance to push up on it. The key in bodysurfing at Pipe is to keep your legs and feet above you at all times. Once your feet drop parallel then you are sure to eat it, the famous Dead Dog. Same with paiponui, dragging your legs keeps your feet above you, keeping you from spinning out. when your turn is established you then pull your legs out of the water depending on how much speed you need to stay in the tube. All of this is of course done in split seconds so maybe easier said then done. I also have noticed in recent photos that I sometimes keep one fin in the water to act as a rudder. Totally subconscious. If you look at the bigger barrel you can see my right fin straight up and down, trying to use it as a brake so I don't outrun the barrel.

5.6 Jayne Seymour

If I want it to turn when I want it to turn I'll put my arm in the water and swing the board around or I'll put my foot sideways at an angle and use my foot as an extra fin, to turn it. Sometimes in different positions on the wave the board wants to go straight but I want it to turn. Sometimes I want to go left on a right hander to get back into the section. It's a different style of surfing on a hard board. The soft boards, they bend and they just curve into the shape of the wave. Hard boards don't.

5.7 Keith Usher

I don't know whether my forward riding style has come from riding bodyboards with a forward of center wide point and learning the COB of those boards and thus it became my "style" Or from riding very weak waves (welsh norm is knee to waist high 6 sec period slopey bumpy surf) and getting forward to try to hold speed and stay on the wave. I know I drive hard through my elbow and hip bone as I will dent a board in those areas. I remember on one of my first trips to indo struggling to make sections on fast waves I saw another bodyboarder in the water who was making everything and traveling very fast, and through watching him saw that his COB was a bit further forward than mine. I took me a few years of adjusting to this new position as it puts less pressure on the tail and on a bodyboard makes the finless tail very loose. But in the end once it became normal to me i gain a lot of speed and made sections much easier. I also took this back to welsh

wave and managed to gain more speed from weak waves One thing i have tried to pass on to other bodyboarders, if that when riding my rail arm is usually bent at nearly 90 degrees (while holding the front corner) this in turn make my COB forward, I see a lot of riders reaching/stretching for the front of the board, this makes there COB very far back and thus the either don't go very fast or lose the wave. I usually have one my hips to knees at the back contacting the board and a elbow at the front, I find if my chests in contact then I loose the ability to swing the board into turns with my arms. Kinda like you were riding a bike and had your chest on the handle bars." "I often get way up on the front for take offs and then when going down the face will slide the board further out in front of me to bottom turn." " There is an adjustment from bodyboarding to my paipo, but it's subtle. Finless riding is about getting your bodyweight on the rail, and about driving through your wave face rail with your elbow and hip bone. The further forward on the board you can get used to mean the board would go faster, but that also made the tail feel looser. So it's also about moving about on the board as you manoeuvre. Up on the nose for take-offs and speed, back on the tail for big bottom turns and carving.

With a short stubby design like mine these forward and back movements are small, the longer/bigger the board the more you will need to move, and in the case of finned boards I have tried you have your weight over the fin. Tube riding my board was a trip at first: I would get way back in a barrel and wait to have the rail slip and get eaten by the foam ball like I would when going too deep on a bodyboard. But, on the paipo all of a sudden it was like being a sunflower seed being squeezed between wet fingers. Speed come from nowhere like a rocket up the bum! You feel the water squirt through the concave and you're out wondering how that ever happened!! Barrels on the paipo over a bodyboard are now a calculated, enjoyed further back in the tube experience."

5.8 Trevor Yamamoto

I wish one of the real old timers from Hawai'i would provide their insight into the origins and art of "superman" style paipo riding. My take is that superman style usually isn't the easiest or most efficient way to ride, but it's hella fun and comes naturally to people who do a lot of bodysurfing. The perception of speed & the entire sensation of riding are much different, especially when you take both hands off the rails. When you're flying across a smooth wave like that, you can forget there's a board under you. It's easy to imagine this style evolved as a natural progression from bodysurfing. Riding superman style is essentially bodysurfing with the advantage of a big planing surface under you. Also,the traditional style of paipo riding with the rider always far forward on the board & head way out over the nose seems more conducive to having the inside arm thrust forward or swept back since you diminish the leverage (from the inside arm) and ability to control the board "bodyboard style" in that position.

I started off riding paipos as a kid using the inside arm forward and back styles because that's how I saw the older guys at Makapu'u & Town doing it, and the arm forward style felt very natural since I did a lot of bodysurfing too. I never got to see the guys riding solid Country waves on paipos using the both hands on the rails - bodyboard style. Picking up paipos again later in life and riding them "bodyboard' style opened up a lot more performance options. Made me wonder why the bodyboard style didn't become the standard way to ride in Hawai'i. You still see a lot of superman style used by paipo riders on O'ahu today. Bodyboard style allows you to really bury the rail, put more power into (and do more kinds of) maneuvers, and easily maintain control on all types of waves. Superman style requires more finesse and attention to balance and body positioning. It also allows you to drive through and make big sections while still keeping the board flat against the wave surface and planing. There's also the greater perception of speed and the fun of being in a controlled slide. Sort of like the explanation car drifters give when asked why they like driving that way. I think superman style isn't the most functional, but I feel it's definitely the more stylish way of riding. Now I use both styles regularly, sometimes switching up on the same wave. Makes riding paipos even more fun.'

6 Speed

Generally speed will be greatest in the top third of the wave and power greatest in the pocket. Most board's speed and performance increases as wave size increases. One style of surfing is simply to seek and utilise the wave's power source whereas another focuses on the making turns or doing tricks. The two approaches aren't mutually exclusive. Big turns may look more impressive and the former approach like nothing is happening, but the sensation of speed can be addictive. Some boards will generate speed from initial takeoff, while

heavier boards may be slower initially, but gain speed from momentum. Lower volume boards also give a greater sensation of being immersed or part of the wave, which coupled with being close to the wave face, enhances the sensation of speed.

7 Handling chop & skipping

Three broad responses to this common issue:

1. Riding style.
2. Board design.
3. It's part of riding prone.

7.1 Riding style

> Forward belly in the front third tend to hold it down

(John Mellor).

> Lay the rail down early and if you get out into the flats and are skipping you can lean more forward and get back to a rail

(Kaliko Kahoonei).

> Ya gotta find the, "Sweet Spot." Every board has a, "Sweet Spot." Try moving a bit forward or adjust your body placement, and see how she runs

(Richard Mendonca).

> Width and or , planing too flat ? Dig rails in !!

Dave Dolan-Smith.

> I keep my wave side hand just off the nose and move my outside hand down to shoulder high to dig the rail in using my outside flipper as a fin to climb into the face of the wave and hold the line. . .

(Bud Gilfillan).

> Another trick in avoiding chop is not to take the first or second wave in a set. The breaking waves can smooth out the surface of the water

(Rod Rodgers).

> The performance of a wood board is contingent upon a combination of factors, including the rider's skill level, the board's dimensions and shape, and the wave conditions. To minimize skipping, focus on adjusting your riding technique, such as shifting your weight and adjusting your hand placement

(Jarrett Liu).

7.2 Design

> your flat plywood has nothing to mitigate surface tension..you want to break it up with a rail that digs ..or add little tiny fins the will cut the surface just enough to keep you down. paipoglide did a cool thing with an outside rail/finlet combo ..or adjust body position to slow down a little like Richard said

(Nick Worsfold).

> More curve ..or more flex

(Bruce Hart).

> More "V" in the nose can mitigate skipping/plowng through surface chop & ripples more smoothly. As with any optimization, what you gain in one capability often times loses in another capability. Look, or visualize, boats and ships in various ocean surface conditions up through swells of 2 - 4 - 8 ft and how they navigate through them. Also keep in mind that high speed creates a lot of lift which then takes you to thinking about airplane wing designs and how they affect lift. Some

> others have suggested longer or more flexible boards which is also true but may compromise other desirable design constraints. The ultimate flexi and less skipping and certainly easier on the ribs is a surf matt. Flat-bottomed, stiffer boards will tend to bounce with speed and even more so with surface chop and small side swell in the face of the wave (chop acts as a kind of speed ramp)

(Rod Rodgers).

> I have been using heavier woods - it has drive up down the wave" (Mahi La Pierre). "It looks flat, adding some contours to the bottom will help. A little bevel on the nose and a V channel on the bottom (the narrow part of the V starting about a 1/3 up from the tail with the wide part of the V at the end of the tail). Instead of a V channel you could add bodyboard style channels. If you add that style, I'd start with two and make it a quad channel if you're still not getting the hold you want. Make sure the bottom of the rails are square so you can dig them into the wave

(Lynn Bellomi).

> Bouncing in bumpy waves is a problem all proners face. There are some helpful suggestions in the comments. Weight can help, ie a heavier board, PU versus EPOXY and a heavier glass job. A bit more length can also be advantageous, but as Rod said, can also be less manoeuverable. More rocker and Vee in the nose can cut through chop and moving forward on the board, without nose diving, can help. There are so many variables and the biggest of all is that every wave is different. Enjoy the experimentation

(Damian Coase).

> Running a 11mm railed, 4ft long, 480 wide , with 4 top cross beams, made of wood. Some other stuff on bottom and deck, all vac bagged to retain flex. Bumps not a problem as flex absorbs it and spits it out the back. Sort of like a mat but faster. And way more responsive. It is a fine line to work out the flex amount

(Justin Spittle).

> Long narrow boards avoid side slipping

(Daneel Olivaw).

7.3 Inevitability

> It's gonna bounce. It's the nature of a belly board, especially if the waves are a bit bumpy"

(Jnthn Roper).

> What's the dimensions of your board? Because, if your board is too small for the size of wave you're riding, no amount of body placement on the board is gonna stop the bounce

(Richard Mendonca).

8 Board style specific tips

8.1 Kim Green (Hawaii Paipo Design)

Due to its almost neutral buoyancy riding a finless paipo is a lot closer to bodysurfing than anything else. It really shines on waves with steep faces as this gives enough velocity so that you can bottom turn off the back corner skeg. Also a steep wave face lets you set the "skeg" when trimming down the line.

Like bodysurfing it really helps on takeoffs to be positioned right at the critical spot of the breaking peak. On a long period swell I often start swimming-kicking with the board held out in front of me really early to help get up speed to catch the wave. Even if you feel you have caught it it helps to give one more extra kick before pulling yourself up on the board as you transition into the drop.

I always grab the nose of the board with the hand that is on the side of the direction I want to go. Lay the forearm of that hand inside and along the rail and reach back with your outside hand and pull up on the outside rail. This will bury your inside "skeg" and you can feel yourself pivoting around about your hip bone that is near that skeg during a turn.

My experiments with finless design are in the direction of adding more snap to the unflexing of the board as it unloads when coming out of hard turns ala the HPD SR model. As I gain experience with them I find my radically adjusting my position on the board (forward and back) allows me to squeeze more out of waves

that I used to get. Taking off I have one hand on the board way in front of me and lay on one side while kicking to be as streamlined as i can. I don't know what tips I have, I'll tell you what my riding style is like though. I am sure you've found that the HPD is not built for paddling speed. That makes take off from the lip the easiest. Which of course puts you at the back of the line in a crowded line up. But oh well. For take offs I put one hand in the middle of the board and lay on my side, kicking as hard as i can, big kicks under water. I don't turn my head forward, but to the side making myself as streamlined as possible. . I am stronger with my left hand on the board so I take off that way for rights and lefts. I kick into the wave until I feel some push from the wave, just after the tipping point, As soon as I feel myself starting down the wave I slide the hand on the board over and put both hands on the rails about 1/4 (?) of the way down the board and pull myself up so that my crotch is just on the board and my elbows are on the board providing leverage. Then lean into the wave. The placement of your weight on the board is pretty much the whole thing. Somebody else said weight forward go faster, weight backward slow down. Too true. In a steep wave that wants to shoot you too far ahead where you'll get swamped, weight back a little and hang in the tube. For a slow wave that is petering out weight forward and turn back into the wave to milk it a little more and maybe wait for the reform. Also if you need weight way forward do a push up on the front so your weight is more on the board but doesn't push you down and pearl. In real steep drops where you think you're going over the falls - I stretch out full length, often saves me from serious thumpings. Turning problems usually come from people riding too far up, thinking the HPD will float them. But that's typically a body-boarder problem, and that not you so... Feet are your stabilizing device, like the tail on a kite. I often find myself lifting one of other foot out of the water to make trimming adjustments and sometimes for a burst of speed both feet come all the way out, but there's a loss of control that come with it.

As to handling, there is a noticeable difference when turning. I ride the thing with my "inside" hand on the nose and lift up with my other hand on the wide part of the board to initiate turns. It rides and planes like an XL but when turning it is a whole lot "snappier". I think it really bends pretty far when you torque it into a turn and unloads a lot of energy when it snaps back. I could also see how it might break in half right down the middle in larger surf.

8.2 Col Taylor (wood bellyboard)

You had to have a lot of wave sense to understand what a wave was going to do. When you are on a bellyboard you had a bit of technique with your right arm and you'd put your left arm out and you'd swing down. We were trying to do the same thing as the boards, we were hotdogging in those days we called it. Your left arm would grab an edge of the water and flip you down the face of the wave. And your right arm, this is going right of course as we mostly rode right-handers, you put your right arm out and catch the face of the wave to lift you up and your left arm would take you down. Yeah, it was bodysurfing. Bodysurfing with plywood help. It was a bit of an art we actually developed. It was pulling on the outside edge, and leaning and drop your left arm down, your left arm it would catch in the water and you'd swing left and you'd turn left, you'd put your right arm out and it would swing you back right. It was the same as bodysurfing. When you are bodysurfing your left arm will drop you and your right arm will raise you, this is going right. Down the bottom then up the top, down the bottom, up the top. Just like a board rider really. That's right, you're putting your arm out and you are using your hips and everything. You're leaning, you're leaning down and leaning up, basically.

8.3 Wegeners Alaia riding tips (2012)

For a few people, learning to ride the alaia comes very quick and naturally. For the rest of us it takes a commitment and practice. People often ask us for tips on how to ride an alaia. So we thought that we would share some pointers that you might find helpful. Keep in mind that it is not like riding your surfboard. The boards don't have as much flotation, less rocker, and no fins. You are not just going to paddle out to your favorite lineup and start catching waves. It takes a little time, and a lot of humility. But once you get your first ride, you will be hooked, just like the rest of us.

START CLOSE TO THE BEACH. Until you become a good at paddling an alaia, it will be best to surf where you can keep your feet on the ground. This way you will be able to jump into waves, and get a feel for the way the board rides the wave.

BELLY RIDING. Riding an alaia, is all about engaging the rail. The best way to practice this is by riding waves on your belly. (Remember we said humility?) You will feel like your surfing is taking 3 steps back, but it is really fun. You will be surprised by the speed and the overhead barrels! Look for small reforms on the inside.

PADDLE IN AT AN ANGLE. Since the boards do not have rocker, try to paddle in with the board angling down the wave. Paddling straight in will result in a nose dive. Once you become proficient you can vary your takeoff style.

START OUT IN SMALL SURF. This will help you stay in control of your session, and not get too frustrated with current and big wipe outs. Staying away from longboarders is also a good idea for now too. (Actually alaia surfing will teach you to look for good shaped waves where no one else is surfing. It's tiring to paddle back and forth as you would on your surfboard. This makes you a wiser and more efficient surfer no matter what board you are riding.) Stay in a crouched position. Keeping a low center of gravity works best.

PADDLE, AND STAND FAR BACK ON THE BOARD. When you are too far forward on the board, your rail has a hard time engaging and you will spin out. If you find yourself spinning out scoot farther back on the board to paddle. This will help you stand farther back on the board as well. SURF WITH YOUR HANDS. Touching the face of the wave keeps your body in the right stance. It also has the magical affect of sucking you up into the perfect trim zone. Your fingers act as your fins.

8.4 Bodyboard tips

> HAND AND ELBOW POSITION Through beach demonstration we all identified the perfect trim position for riding right or riding left on a wave. To have a good style the main points for the group to remember were to keep elbows on the board and tucked in. There were also a number of riders holding the middle of the nose of the board with their leading hand. The leading hand needs to hold the front corner of the board. These small adjustments make a huge difference to style and function.
>
> LOOKING IN THE RIGHT DIRECTION As your head is the heaviest part of your body, it's essential to look in the direction that you are planning to get too. Where your head leads, your body follows. It sounds a bit stupid to say that but is really important when you're focusing on style. When we worked on rolls and spins it was really clear that those that looked through their moves and exaggerated their head movements made the fastest improvements.
>
> LIFT THOSE LEGS Every move becomes easier with speed. In order to gain speed it's really important to minimise drag. So lifting your legs out of the water when trimming and then dipping them to regulate speed was one of the tasks that the group was set. This simple change to nearly everybody on the course saw a massive difference in performance.

(https://bodyboard-school.com/4-ways-improve-bodyboarding-fast/)

> Technique is critical. The Australian bodyboard coach says you can't get to the level of elite rider without a proper technique. For example, a correctly placed front hand right on the corner for both lefts and rights is very important. Also, get fingers spread slightly for control. Bunting suggests your outside rail hand should be about halfway down your board with your elbow nice and close to your body, (no chicken wings or back elbow on the deck). "Chin up and chest up with arched back, although still relaxed. Legs slightly apart for control. Silent efficient kicking just under the water surface, no wasted energy," underlines "da Boogie man".

(https://www.surfertoday.com/bodyboarding/9665-how-to-improve-your-bodyboarding)

> The most important thing to remember when holding your edge on a wave is your weight and positioning on the board. here we give an example of going left and holding and edge
>
> - Paddle hard into the wave and move your weight forward on the board your weight should be on the left side of your board, with your left arm holding the corner of the nose and you should be leaning the weight of your body into the wave.
> - Your body should be about $\frac{3}{4}$ of the way back on the left side of the board with your hip pushing into the corner of the tail of the board.
> - Your left leg should be trailing in the water creating an extension of your rail. Therefore giving you more holding ability in the wave.
>
> The bottom turn is the key element to good bodyboarding it sets you up with plenty of speed and projection for the rest of the wave.
>
> - Paddle hard into the wave and when you feel the wave push you move your weigh to the tail of your board and drive your hip into the inside edge closest to the wave's face.

- When trimming to the left, lean on the left side. When going right, drive your hip into the right corner of your board.
- lean into your turn and think about where you want this line to take you. Using your arms to help steer the board, pull up on your outside edge with controlled power.
- You should be careful not go too far into the flats before you make your turn because this will cause your board to bog and cause you to lose speed and balance.

The cutback is one of the most fundamental maneuvers in bodyboarding. But if performed correctly, it can also be one of the most radical.

- The first factor in a good cutback is speed. With speed from your bottom turn, focus on the spot where you want to begin your carve
- you should make sure your stomach and hips are on the deck and that both legs are out of the water so you are gaining maximum speed
- once you are out in front of the wave drift to to the top of the wave move forward slightly and turn your head back towards the wave to start your turn
- Drive your hip into the inside back corner of your board. This will help keep you from losing your edge while turning on the wave's face.
- As a means of keeping the cutback flowing keep your legs just touching the surface of the water to prevent bouncing out.
- When the cutback is 90 per cent complete, begin to re-centre your weight and turn your head in the direction you now want to head.

(http://www.bodyboardshop.com/bodyboarding_tips_tricks)

8.5 Harnessing flex

The trick is the flex, I can bend over the front of the wave and then you can feel yourself being pulled onto the wave and you push yourself onto the wave and off you go. If you've got a stiff board you don't get the same sensation. The flexibility is the trick, it's a beautiful feeling, especially if you are doing bottom turns. You can almost feel yourself being sprung off the bottom (Dick Ash).

Up front, these are my learnings from surfing the waves we have in Victoria. Typically, I'm out in head high plus waves with a bit of power. I'm 130 kg, so I have different needs to someone half my size, but the design principles are the same. Having made over 220 boards, I've failed fast from experience.

Torsion and rocker I've found that Twisting Torsional flex is definitely the magic sauce. It's more important than any nose to tail flex. If you have a board flex nose to tail, it bends like a banana and belly's out. A prone board with a Banana rocker tend to push a bow wake, and that is a slow board. You want twist. One of the many riddles to flex, is the reflex.... The rebound of the wood adds to the fun Factor. The torsional flex means that you can flex the rocker and carve turns easily. The wood rebounds and squirts you through the turns

For me, boards without flex aren't as enjoyable to ride prone. With my paulownia wood boards being 6 to 9 mm in the hull, you do feel the ripples and vibrations like a mat. You can alter the planning surface and rocker line with pulling up and or pushing down on either side of the nose. Keep in mind, my boards have a maximum of 30 mm nose lift, to ensure they are quick. I get the control and carving ability from torsion flex. With prone riding, our weight is evenly distributed over the entire board. To get speed, your trim will be pretty flat. That's why mats are so fast, they are flat and don't push water. If you see a sheet of water coming off the rail, that's a good sign. If you see a frothing bow wake, like a cargo ship, you have it wrong.

The nose to tail doesn't flex a lot, it's probably 10

When you want to go flat out, and let the arrow fly, the board is flat, but when you want to turn with control, the tail and board flexes and morphs into a carving machine. In a stiff board, you don't get the two in one deal. You have to compromise and choose one or the other! Torsional flex overcomes the lack of leverage we have as prone surfers, compared to say a kneeboarder and or stand-up surfer. We can't bank turn or get our boards up on rail as well as our centre or mass is 3 inches from the deck.

On the wave On the wave I can feel the board twist and rebounding as you ride. The paulownia wood has a great rebound flex, and twangs back to shape. On steeper faces, you can feel the rear corners flexing and responding the lift in the wave face, similar to that of pumping a board on the face to gain speed.

When carving off the top, I feel the board rocker change and then once I take the pressure off it pings back to flat again. You can bend the board down and up, creating reverse rocker. This is noticeable when dropping into a wave, as the reverse rocker scoops in. Overall, the dynamic flex and twang make the boards playful; and responsive. I have ridden plenty of stiffer prone craft and keep coming back to the flexible paulownia as my favourite.

Board Outline The wave types dictate what board outline I use. My wide board nose board is great for big flat shoulders. So that's perfect because it's the broad nose board are faster because of the planning surface and the parallel rail. I use the board with the pulled in nose, in waves of consequence. I'm often dropping in vertical and a broad nose board was getting a bit caught up and. In the bigger waves, I don't need the power or planning surface of the broad nose board.

So, on my take-off, I'm actually vertical dropping in and using that back rail and that centre fin is the only thing holding me in. And then I'll hook it and then I'm away on the face and often barrelling faces. It's just a different board for different conditions. In fuller waves, I have a finless version of the board. The ride is different again and enables you to have some fun with both carving and drift turns. So that's the difference and that's good. I just wanted to give that context (Jason Grant).

As far as flex goes I tried a variety of board shapes and different flexes. The one thing for sure is you don't want any flex fore and aft. It definitely kills all the speed, turning it into a dead dog, sure death in big waves. The stiffer the board the faster it is but having enough flex side to side so you can crank your turns without fear of breaking loose and side slipping. Paul Lindbergh worked on them for me. Too much flex and the board would just bend and not react. So finding the perfect medium between stiff and flex was the key. One of my best boards I made was from a mold Larry Bertleman shaped for me. I laminated two sheets of 1/8th aircraft ply using matt rovings, cutting the wood out in the middle. Problem was it barely floated and I lost it on a giant day. It was last seen somewhere off Rocky point (Sean Ross).

8.6 It just goes to show, it's how you choose to ride it

Mercer Aikala, knee riding a paipo board. 1970s contest

Wally Froiseth, standing on his paipo board.

Source: Left: photo by Wayne Bartlett; Right: photo courtesy John Clark.