

It's a Mogul Field Out There!

By Mike Vandamm

Imagine for a moment that you are Johnny Moseley, California Bump Skier, and gold medalist in Men's Mogul Skiing at the 1998 Winter Olympic Games, gazing intently down from the starting gate at Nagano on a steep slope covered with big, mounded "moguls". Now, rotate the slope to a horizontal plane and set the moguls in motion, mostly from one direction but occasionally from the opposite direction or from random directions, moving singly, or in sets one after another. From kayak level, the sea often looks like that to me. And those conditions, even if the bumps are only boat wakes a couple of feet high, call for major adjustments in paddling technique, comparable to what would be called for when a cross-country skier encounters a steep downhill slope. (Bear with me here; this is cutting-edge stuff.)

If you try to maintain the even, rhythmic stroke which is optimal on flat water, waves may occur to you as obstacles which disrupt your paddling rhythm and slow you down. Moving fast and efficiently over waves requires adjustment in the timing and effort of each stroke, as well as a little body English, in order to take advantage of the gifts offered by waves: downhill slopes, and momentary reduction in the wetted area of the hull which is the primary causative factor in the hydrodynamic drag which keeps you from accelerating to dream speed.

A treatise on paddling on waves might contain passages like: "Drive hard off the top of a wave unless either:

(a) your boat is likely to become airborne, followed by a heavy splashdown which will rob you of most of the advantage you gained for your extra effort, or

(b) it looks as if you will bury your bow in the next wave, taking green water over the foredeck which will also cost you much of your forward speed.

These considerations are in turn influenced by the height, period and steepness of the waves....". The trouble with an intellectual approach like this is that it doesn't seem to store the information in an area of the brain which is accessible when immediate, reflexive action is required. So, if your psyche is constructed anything like mine, experience will be the best teacher. I can only offer a few general suggestions:

- Above all, take on wave paddling as an experiment. Try adjusting your stroke to meet the conditions you encounter from moment to moment, observing the effects of the adjustment and making additional refinements based on what works and what doesn't. In time, you will develop an eye for judging not just the next wave, but the wave or two waves after it. You will also learn to feel with your paddle when an extra effort will be rewarded and when to ease up to conserve your strength.
- In general, ease up on your stroke going "uphill" (Why fight gravity?), and paddle hard "downhill."

- In general, paddle hard over the crest of a wave, when the wetted area of the hull is momentarily reduced, even if you don't see an obvious downhill slope ahead. If your paddle blade encounters nothing but air as you go over the crest, you have an opportunity to relax for a moment. Learning when to take "micro rests" is important to maintaining your strength.
- Make turning strokes to correct your heading on or just before or after the crests of waves, when the effective waterline length of your boat is momentarily reduced. The difference between this and trying to turn in a trough will be like night and day.
- The timing and speed of strokes can be adjusted by playing with the length of the stroke and the angle at which the paddle is held, as well as the physical effort which you put into the stroke.
- You can propel and control your boat more efficiently if the cockpit is properly fitted out with padding to snugly fit your individual body form.
- On waves, the rewards of good technique are especially apparent in light, narrow boats. But even with a week's camping gear loaded into a beamy cruiser, "micro gravitational opportunities" abound on open water when you're in the habit of looking for them.
- Adjustments in stroke speed and timing tend to be easier to make with shorter (say, under about 225 cm.) paddles.

A following sea presents special challenges and opportunities, and requires a set of skills which are beyond the task which I have assigned myself in this short article. The topic of surfing on following waves has been addressed in print by a number of paddling notables. I'd like to take it on, perhaps as a group writing effort, in a future issue of *The Chesapeake Paddler*.

Commentary: It's nice to see that you've organized your thoughts about this subject, the article is very good. Over the past year or two, I've listened to these ideas and since they've made a lot of sense. I've attempted to incorporate these concepts into my rough water paddling routine. You state that "experience is the best teacher." This is especially true in rougher conditions. I have limited experience (where the heck are you Bonnie?), but here are my observations about having tried these suggestions:

Turning and making course corrections in the trough of a wave is nothing but a waste of energy...particularly when your boat "tracks like a train" like mine does. Although this seems like a "no brainer, I still occasionally find myself doing this. The feedback loop works very well in this case, when the kayak fails to turn, you kick yourself for being brain-dead enough for trying in a trough.

My experience with timing strokes so that they occur at the top or on the downhill side of the wave is that implementation of this practice requires significant awareness about the conditions around you. This awareness is good, very good! Any practice that increases your awareness under more challenging conditions is good. This need for awareness is particularly true when paddling bay chop versus ocean swells. My experience with ocean paddling is limited, but I've found that I typically have a better chance of identifying the basic wave characteristics of ocean waves than of Chesapeake Bay waves. Bay waves often appear to have random periods, until you realize that you're dealing with multiple sets of waves

that approach from different directions due to clapotis, shoals, boat wakes, etc. Sorting out these different wave sets and adjusting your paddling "cadence" can be fun and challenging at times.

Another problem that I have is that I find that no matter how hard I try, my body likes to develop a rhythm or cadence when paddling, particularly when I am fatigued. Most of us learn to paddle on flat water, we are taught basic paddling techniques and we practice them on flat water. Over the years, I've worked to make my flat water stroke as efficient as possible to allow me to handle higher speeds for longer durations. A rhythm works great for flat water and for long trips, and can be achieved to some extent in rougher conditions, but as Mike is pointing out, this approach leads to energy wasted that can be significant. In some respects, as we move from beginner, to intermediate, and onward to advanced paddling, we need to untrain ourselves of certain habits to allow us to master new skills.

A final thought on this... there are times when you really want to have as much speed as possible heading into a wave. Failure to take an "uphill" stroke (strokes, plural on large waves) may cause you to lose needed momentum and can be destabilizing depending on the conditions (dumpers, steep or tall waves). Losing momentum may mean that you need to paddle harder to gain it back again (inefficient), or it may mean that the oncoming wave tosses you backwards.

Just my random thoughts and experiences... your article as it stands is very good.

Greg Hollingsworth

Commentary: Full and proper use of the wave crests is paramount, whether it be 8" chop or 80" spilling or wind sheared swells. Work out a rhythm which will smoothly and regularly place the tip of the blade just over the wave crest in order to accelerate/maneuver off the "meat" (highest pressure area) of the wave. In spilling waves and waves/swells in which you can no longer reach comfortably over the wave crest, drive the tip of the blade INTO the top 2"-4" of the wave crest (foam in spilling waves) in order to penetrate through to the back of the wave, again allowing you access to the meat of the wave to accelerate, maneuver, explode off of, or surf broached but controlled if the wave wins out. This blade placement technique also helps counter wickedly high winds by using the wave crests as a windscreen, but blade placement may vary from crest to 4" down dependent on wave height and steepness. If the wave MIGHT dump, DO NOT place the paddle blade high (hand of extension arm over eye height with any more elbow bend than 120°. The resulting shoulder dislocation will disrupt your paddle activities for some time to come.

Vince Dalrymple

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