How to Paddle FASTER

Paddle

TIPS FOR OPTIMAL TRAINING

BRENDAN O'NEILL

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2 Strengths and weaknesses

At physiological extremes water sport athletes fall into two categories, either strength focused or orientated more towards aerobic fitness. Strength focused athletes will tend to excel at shorter more explosive disciplines, 200m sprint kayak, and Pacific Outrigger sprints, while those with high levels of aerobic fitness will do better at the longer events where aerobic endurance is important such as rowing and ocean ski paddling.

In the real world most athletes fall somewhere in between these two extremes. Successful athletes and coaches will understand strengths and weaknesses, playing to strengths and minimizing weaknesses. Eirik Veras Larsen won medals at three consecutive Olympics in kayak 1000m sprint including two golds and one silver. In an interview before the London Olympics, where he again won gold, he was asked about his strengths and weaknesses and listed his strengths as technique, endurance and a good racing head and his weakness as muscle strength. His understanding of his own unique attributes enabled him to plan his training and win gold despite underperforming on some benchmark tests. Eirik used his phenomenal endurance ability to maintain high stroke rates for prolonged periods and by refining his technique to minimize boat movement and maximize efficiency squeezed every last centimeter out of his distance per stroke even at high cadences.

Athletes who have real time stroke rate feedback will immediately identify their ability or lack of ability to sustain a range of cadences. Before reliable stroke rate display, when athletes were asked to train at 80% intensity it was common to see a significant decrease in stroke rate throughout the training session without athletes being aware of this. Even on short training efforts of 0-1 km it is usual to see higher cadences at the start and a dropping off with time. In order to produce the best training adaptions it is important to design training to target the physical adaption you want to develop. So for threshold training the adaption you want to achieve is an increased clearance and increased tolerance of muscle lactate. Stroke rate feedback is a major advance in helping to identify this exact training point without the need for frequent lactate blood levels. Stroke rate feedback has proved a major advance allowing targeting of several specific training intensities such as fully aerobic (below VT1), VO2 max , threshold (VT2) and anaerobic. I will talk about specific training for these adaptions in later articles but for now keep in mind that if you don't know your cadence you are only guessing the intensity you are training at and if you can't sustain the required cadence (eg. For threshold training) you are unlikely to make significant improvements.

By dividing training into physiology based intensity bands you can quickly identify what you are doing well and where more work is required.

Athletes who have a range of cadences that they are fit enough to sustain and bio-mechanically comfortable with need to turn their attention to distance per stroke. Once you have distance and stroke rate as training metrics it is easy to calculate distance per stroke and the free Vaaká Analytics software does this automatically for you. All athletes will lose some distance per stroke as cadence increases, but some athletes will notice a disproportionate loss of distance per stroke at high cadence and this will seriously limit their maximum boat speed. Identification of unique strengths and weaknesses is important when optimizing your training program.

[Expect the next chapter by email in 1 week!]