

News

- ☺ A training camp was conducted on AIS facilities in Canberra on May 7-11. Six boats and 18 athletes were tested. The average value of the power in a group of 12 female rowers and scullers was $238.6 \pm 17.9W$ over an 1800m race. The highest power over the race (265.6W) was measured in a double bow Dana Faletic, Amber Halliday in LW4x was the second (259.8W) and Monique Heinke in W2x had the third score (251.2W).
- ☺ There were problems with the telemetry system during the training camp. Both transmitter and receiver failed due to unknown reason that delayed testing for one day.

Facts. Did You Know That...

- ✓ ... even distribution of the boat speed during the race is not a common pattern and should not be a target for racers (1). In Sydney Olympic Games medal winners were 2.4% faster at the first 500m than their average speed for the whole race, 1.2-1.3% slower at the second and the third sections and 0.2% faster at the last one;
- ✓ ... bend of the oar shaft could achieve up to 10 degrees at the point of maximal force application (our unpublished data). The shaft works as a spring and accumulates up to 25% of rower's power over the first 15-20cm of the drive. It is important to use this power at the end of the drive by means of maintaining blade depth and force application.

Ideas. What if...

- ? ...you use imitation of cross-country skiing (roller-blading with poles) as an out-of-water aerobic exercise? It is a well-known fact that cross-country skiers have the highest values of VO_{2max} . (2). Compared to usual rowers' aerobic drills (cycling and running), skiing imitation uses trunk and upper extremities muscles, which are very handy in rowing. It is one of a few exercises that use abdominal muscles in aerobic mode that can prevent rib fractures. Plus, it is much safer than cycling. Beautiful bicycle roads in Canberra and other Australian cities gives you a great opportunity to use this exercise;
- ? ...you use "power strokes" more selectively. These drills with a water brake and "by seats"

looks very similar because they both emphasize force application. However, their biomechanical structure is very different. Use drills with the brake to emphasize the first part of the drive because additional resistance significantly decreases boat speed during recovery phase and makes force application after catch more comfortable. Boat speed fluctuation here is higher than in normal rowing. Rowing "by seats" makes the second half of the drive harder because bigger passive mass of the boat decreases its acceleration, but in the same way it prevents deceleration during recovery and makes boat speed fluctuation lower than normal. Use rowing "by seats" or with additional weight (in singles) for drive finish improvement.

References

- 📖 1. Kleshnev V. 2001. Racing strategy in Rowing during Sydney Olympics. Australian Rowing. 24(1), 20-23.
- 📖 2. Strome S. et al. 1977. Assessment of maximal aerobic power in specifically trained athletes. Journal of applied physiology. 42(6), 833-837.

Recent Developments

- 📖 Significant progress was achieved in developing Windows-based software for data acquisition. Now it is working on the ergo, but on-water we still collect data under DOS and process it in new Windows software. The major problem is maintaining compatibility with old data formats and continuity of results.

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