

News

- ☺ Three training camps were conducted on AIS facilities in Canberra during March 2001. 12 big boats and 56 athletes were tested. A new test protocol, which explores rowing power and technique under fatigue of 1800m race, was introduced (author Harald Jahrling, Womens Head Coach).
- ☺ On April 5 and 12 AIS biomechanist Dr. Valery Kleshnev gave two presentations for AIS coaches and scientists titled "Rowing Biomechanics Developments: Three Years Review". More than 30 people attended the presentations and gave positive feedback.

Facts. Did You Know That...

- ✓ ...longer Distance-Per-Stroke is more preferable for increasing of boat speed than higher Stroke Rate, especially in sculling. In Sydney Olympic Games six gold medals were won using longer DPS (W1x, M2x, W2x, M2x, LM2x, W4x) and three by means of higher SR (W2-, M2-, LM4-).
- ✓ ...blade propulsive efficiency has highest values at the catch and finish of the drive. Slow blade insert into the water and "washing-out" at finish do not allow apply force at these parts of the drive and decrease propulsive efficiency of the blade;
- ✓ ...footstretcher force is approximately 30% higher than handle force during on-water rowing, whilst they are nearly equal on ergos. This means that rowers receive relatively higher workload on legs and lower body on water and, vice-versa, arms and upper body are heavier loaded on ergos. This is true for any existing ergometers types (Concept-II, Row-Perfect, etc.);

Ideas. What if...

- ? ...you used speed drills in rowing more extensively? Two sorts of drills are widely used in many sports: the first one emphasizes force application and the second one utilizes higher speed. Examples are: up-hill and downhill running, throwing a heavier and lighter discus, javelin, hammer, etc., swimming with water break and with dragging device. In rowing only the first type of drill is widely used: rowing by seats and

with water break. It is not expensive to find 80-100m rope with 3-5m elastic part in it. A motorboat is not a problem either. Rowing in small boats with higher speed can improve technique when rowers move to bigger boats.

- ? ...you predict of your current racing result without applying additional stress pressure on rowers? Also, would you like to know stroke rate and boat speed in different training zones more accurately? If the answer is "Yes", why don't you try "Progressive SR" test? The test consists of five-six 250-500m pieces with increasing SR (ex.: 20, 24, 28, 32, 36, 40), maximal force application and unlimited rest periods. You should take the time of each piece, count the number of strokes and then input the data into a simple computer program. The program automatically calculates your prognostic race speed and SR/DPS in different training zones.

Recent Developments

- 📁 A new software program was developed to meet requirements of the new biomechanical testing protocol with 1800m race. The problem was that the rowing course is not marked at all desired points (100, 300, 550, 850, 1050, 1300 and 1550m). The program calculates required distance from the boat speed sensor and automatically takes split times, average power and other biomechanical parameters for each rower during required sampling periods.

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