

News

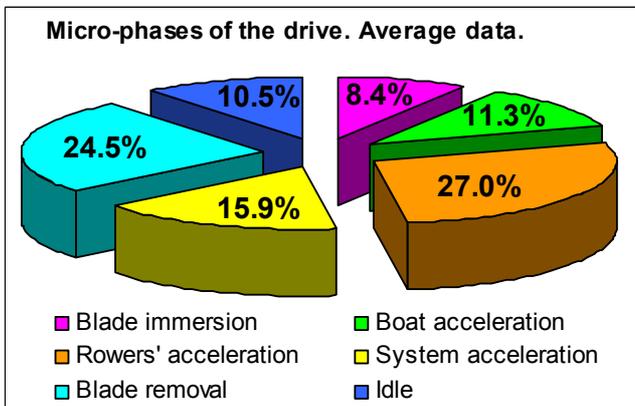
☺ *Dear rowing coaches, rowers and all people supporting rowing!*

The best wishes to you and your families in the New 2003 Year!



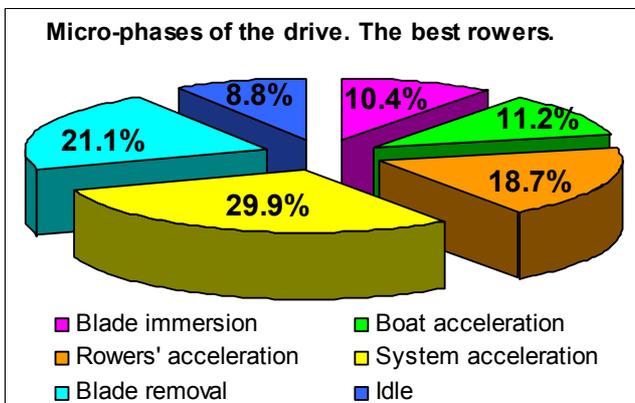
Facts. Did You Know That...

✓ ...rowers' CM acceleration micro-phase is the longest one in the drive phase and comprises 27% of its duration. The second longest is the blade removal micro-phase (24.5%) and the third one is the system CM acceleration micro-phase (15.9%).



The definitions of the micro-phases were done in the previous RBN 11/2002. This data was obtained as an average of 1450 biomechanical samples in all boat types.

✓ ...the best rowers have nearly two times longer duration of the system acceleration micro-phase (29.9%) than average data:



Rowers' acceleration micro-phase is significantly shorter (18.7%) than average (27.0%). All other micro-phases have similar duration.

Ideas. What if...

? ...we want to row like the best rowers in the world? Then we need to increase duration of the system acceleration micro-phase. This means we should accelerate the rowers' center of mass and the boat together as long as possible. To do this, we can take into account the following rules:

✓ As you can see on the graphs of the previous RBN, the system acceleration micro-phase coincides with simultaneous activity of the legs and trunk. Their power curves overlapped and this produce the highest amount of power applied both to the handle and the foot-stretcher and the highest acceleration of both the rowers' mass and the boat.

To increase duration of the system acceleration, all other micro-phases should be shortened:

✓ The blade immersion micro-phase can be shortened by means of quicker vertical movement of the oar at catch, which must be coordinated with the fast force application to both the handle and the foot-stretcher;

✓ Duration of the rowers' acceleration micro-phase correlates positively with the quickness of the legs speed increasing;

✓ Boat acceleration dominates when rowers apply more force to the handle and gate than to the foot-stretcher. This can happen twice during the drive phase: strait after the blade immersion and before the blade removal. Once again, we should emphasize importance of simultaneous force application to the handle and foot-stretcher (do not confuse with the simultaneous rowing style);

✓ The blade removal phase can be shortened if the handle quickly tapped down at the end of the drive phase. Also, a fast arms work concentrated at this moment can help;

✓ Duration of the idle drive micro-phase correlates with the duration of the blade removal micro-phase and depends on quickness of changing of the oar movement direction at the end of the drive.

Other News

All previous issues of RBN can be found on the Rowing Queensland site: www.rowingqld.asn.au/Resources

Contact Us:

✉ ©2002 Dr. Valery Kleshnev, AIS/Biomechanics
 POBox 176, Belconnen, ACT, 2616, Australia
 tel. (+61 2) 6214 1659, (m) 0413 223 290, fax: 6214 1593
 e-mail: kleshnevv@ausport.gov.au