

STANDARDS IN SPORT: WILDWATER CANOEING

The International Canoe Federation has only a few rules relating to what competitors must wear on their head, torso and feet, but the rules are clear and always make the safety of canoeists paramount.

Preventative rapids action

Sport must have rules and rules must be upheld and adapted, as progress dictates, by a governing body. For most international governing bodies, neutral Switzerland is home and the organisation that runs the competitive water-based activities that fit together under the umbrella of Canoe Sport, the International Canoe Federation (ICF), is no exception.

Based in Lausanne, the ICF is now the body responsible worldwide for canoe marathon, canoe slalom, canoe sprint, wildwater canoeing (also called whitewater racing), canoe polo, canoe sailing, freestyle kayaking, surfski and dragon boat racing. "Ours is a multi-discipline sport and the ICF must reflect that," says the organisation's president, former Olympic sprint canoeist for Spain, José Perurena López. "It is

important for us to engage with each sport and represent it on the world's sporting stage with professionalism."

A professional approach means taking clothing and equipment seriously and this article looks at the most recent rules adopted by the ICF governing what its athletes have to wear in competition for one of its disciplines, wildwater canoeing.

To make Mr Perurena's life even more complicated, the sport of wildwater canoeing sub-divides into two groups and five classes, depending on the sex of the competitors and the degree of difficulty the stretch of water presents. The most difficult, Class 5, means the canoeists will have to cope with continuous rapids, large rocks and hazards that can present a serious danger, including the danger of serious injury or even death if not handled

Wildwater canoeing competitors want to stay safe and play by the rules, but they want gear that lets them enjoy the natural excitement of a running river.

Martin Zilka/Red Bull Content Pool

correctly. There is a debate in the sport that some stretches of water, usually regarded as impassable, come into a Class 6, but the ICF stops at Class 5.

Events typically include two races, a longer, classic race in which paddlers negotiate stretches of river of up to ten kilometres, and a much shorter sprint. Most athletes will compete in both on the day. A fast sport, and, as we have seen, far from danger-free (even at the lower categories), the ICF rules for wildwater canoeing rules are fairly succinct and clear, with participants' safety always of paramount importance. In fact, the rules contain a formal requirement for any competitor finding another "in real danger", to stop immediately to give as much assistance as possible "under pain of disqualification for life".

Equipment equality

Boats have to be unsinkable and they have to have airbags at the front and behind the canoeist's seat.

Turning to what competitors must wear, the first items mentioned in the ICF rules are shoes. "Each competitor must wear shoes," the rules document says, "from recognised and established manufacturers, guaranteeing quality of material and [compliance with] industry standards. The shoes must have a thick [enough] sole to protect the feet. The shoes must fit in such a way that they will not come off in a capsize or be released from a boat." Organisers of events are advised to check each competitor's shoes before the start of a race.

Keen and Teva are among the well known brands that offer specific kayaking shoes. Models from the former include the Newport H2 (for men) and the Venice H2 (for women), both in the form of sports sandals with an open strapping system, but with a quick-draw elastic cord fastening too to make it secure enough to fulfil the ICF requirement of staying on the feet.

For its part, Teva has products such as the magnificently named Cherry Bomb River kayaking shoe, first launched in 2009. Its outsole owes its inspiration to the shoes that chefs wear to guard against slipping on a greasy kitchen floor. The technology, which it calls Spider Rubber + J Step, performs well on wet rocks and slippery riverbeds too; the low-abrasion rubber compound sticks to surfaces, while built-in micro-channels force water out from under the sole. It, too, has a foot-hugging lacing system to make sure the shoe stays on during competition.

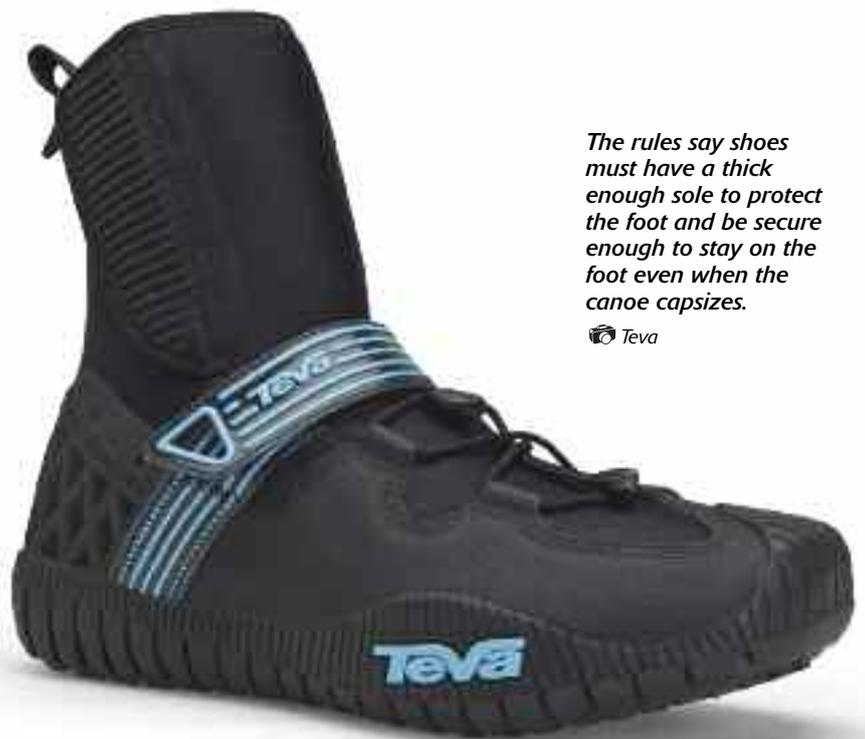
Other brands offering footwear specifically for wildwater canoeing include Artistic Sportswear from Germany, Five Ten from California, NRS from Idaho and Kokatat, also from California. In common with other apparel

and footwear for watersports, neoprene is the most common material of choice for uppers, thanks to its ability to keep feet warm and dry. Soles, as the rules state, have to be thick enough to protect the feet from stones and to help competitors avoid slipping on the shore or the river bed.

Kokatat spokesperson, Lisa Kincaid, explains that her company doesn't design its product for wildwater canoeing based solely on ICF rules. "We take into consideration what the needs of the paddlers are for different disciplines," she says. "We have a shoe called the Seeker, specifically for freestyle kayaking and any paddling in low-volume boats. We also have a version with a thicker sole called the Portage for people who want a low-profile shoe with a thick enough sole to walk to the put-in or take-out, or for portage. So either of these shoes would work for the ICF rules." She points out that athletes sponsored by Kokatat wear these shoes for official competitions.

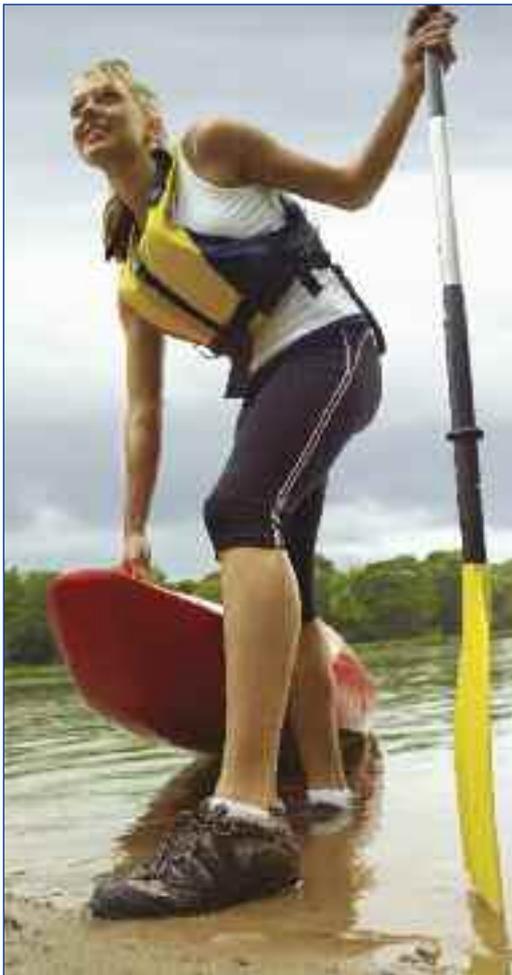
Neoprene uppers

High-tech rubber soles and neoprene uppers lead many discussions these days to the Vibram FiveFingers. Since its introduction towards the end of the last decade, the distinctive minimalist shoe with glove-like spaces for each toe has spawned what Italian specialist sole materials manufacturer Vibram insists on calling the FiveFingers family. Of the more than 45 varieties of the product now available on the market, six (if you count children's styles) are designated as being especially suitable for watersports, including wildwater canoeing. The main ones are the Flow, which has a 1.2-



The rules say shoes must have a thick enough sole to protect the foot and be secure enough to stay on the foot even when the canoe capsizes.

 Teva



Buoyancy aids are for use in sheltered waters with help and rescue close at hand.

 P2i

millimetre Neoprene lining and two-millimetre EVA footbed for thermal insulation and protection. The sole is made from Vibram's IdrGrip performance rubber (available only in black), which is "razor-siped" for added slip-resistance.

The FiveFingers has certainly been popular with enthusiasts of wildwater canoeing and other watersports, but early adopters did complain that the low-cut uppers, in common with footwear of a similar cut from other brands, let in bothersome gravel and pebbles, and that the FiveFingers was less easy to remove, shake and replace than some other shoes. Vibram has said its KSO model addresses the problem, with its new design of an upper of thin, abrasion-resistant stretch polyamide and breathable stretch mesh that wraps the entire forefoot.

Head smart

Helmets and buoyancy jackets are the only other items of apparel that wildwater canoeing competitors must wear, and there is an intriguing warning in the rules against modifying these products in any way.

The ICF says helmets must comply with standard EN 1385, and be ICF registered. EN 1385 works on the basis that the most common head injury in canoeing and whitewater sports happens when competitors hit their heads on a rock or other underwater object after capsizing. The standards experts worked out while debating 1385 that it is "extremely unlikely" that the speed of any impact will be greater than five metres per second as this is the highest recorded rate of flow in a whitewater river. The most common site of injury is the frontal or forehead area or the side of the eye socket, so approved helmets need to cover these areas of the head and must be securely fastened, with any chin-strap under tension at all times.

For buoyancy jackets, ISO 12402-5 is the standard that applies. The specification here is that the jackets must have a buoyancy of "not less than 50 newtons", with the standards body specifying that these buoyancy aids are for use in "sheltered waters with help and rescue close at hand". Kokatat has products such as the Maximus Prime PFD (for personal flotation device) that tick the boxes. But, once again, Lisa Kincaid points out that her company thought first of the paddler's needs when designing them. "We look at the need of the consumers and take feedback from our team paddlers, then design a PFD that's in compliance with the approval process," she explains. "We have two models that are designed as low profile PFDs, the Maximus and Orbit Tour. The Maximus Prime is our rescue version of the Maximus so it would be used for running rivers not for freestyle competitions."

The ICF rules also take into account that to achieve greater buoyancy, greater bulk would be necessary possibly impairing the user's activity. Wildwater canoeing competitors understand the need to be safe and to play by the rules, but they definitely don't want gear that impairs their activity. 

Vibram FiveFingers products have proved popular with wildwater canoeing competitors.

 Vibram

