

## **Canoe Sprint Competition Rules – 7. Judging and Timekeeping: A basic guide for Finishing Line Judges**

The ideal finish line judge (judge) must exercise considerable concentration and be able to work quickly, accurately and calmly without getting flustered, particularly when confronted by a blanket finish. It requires considerable skill and practice to develop the ability to record in the mind the visual picture of a close finish and place boats in the correct order.<sup>5</sup>

Timekeeping is now normally through a photo finish system. However, in very rare circumstances the judge may also be called upon to act as timekeeper. For good timekeeping the same skills of accuracy and calmness are required together with being well practised in operating a stopwatch to a consistently high level. This can only be achieved if the judge acts without muscle tension, does not anticipate either the start or a boat crossing the line, and eliminates any waste movement by just squeezing the watch between thumb/hand and bony part of the forefinger to operate the button.<sup>6</sup>

Judges need very good vision. They should visit an Optometrist for an eyesight test every two years, whether or not they wear lenses.

Each judge needs a clear and uninterrupted view of the finish line. This is best achieved by locating a tiered stand on the bank in direct line of the finish. Sometimes this stand may be uncovered and therefore judges will need to equip themselves for protection against the rain. In addition to good rainwear and spare warm clothing it is essential to carry a supply of large, transparent plastic bags big and loose enough to carry a clipboard and movement of the hand using a pencil.<sup>5</sup> Ballpoint pens should always be avoided; they run out of ink, don't write on damp paper and tend to rip damp paper. It is preferable to use a thick, very soft pencil, sharpened at both ends.

The Chief Photo-finish Operator and his assistants should be checking their equipment at least two hours before the competition to make sure all the systems are operating correctly. Judges should report for duty at least 30 minutes before the first event.

### **Judging**

The rules require that the position of competitors in their boats is recorded by video camera at the time of arriving to the finish line. This recording is used to decide whether or not the competitor was in his/her boat at the time of arrival at the finish, and as a last resort can be useful to assist officials to make accurate decisions.

Judges record the boat numbers in order of finish. As the boats approach the finish, the judge must focus his head and eyes firmly on the finish line for the whole time boats cross the line. It is a mistake for a judge to allow his sight to follow boats through the line in attempting to identify the finish order. The numbers should be written vertically

down the paper. If in any doubt, it is important to leave a clearly shown gap - (?) - in the result. It is no discredit on a judge not to have been able to place all the boats; however, to present an inaccurate or copied result very definitely is. For this reason, as soon as the race is over it is vital that the result is not discussed until the Chief Finish Line Judge has viewed each judge's written decision and made up his record.<sup>5</sup> Where judges differ in the placing of the boats, the decision is made by simple majority with the Chief Finish Line Judge having the casting vote if necessary.<sup>2</sup> When photo-finish is used the judges' decision is compared with it, with the photo-finish being decisive in the placing of boats.<sup>2</sup>

There are various systems to ensure accuracy of placing, but I only intend to record two here. Both systems have six judges including the Chief Finish Line Judge and he will make his own record of the order of finish, comparing it with the records of his judging team.

**System 1.** The Chief Finish Line Judge divides his team to note the order of finish:  
 Judge 1, records the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> boats;     Judge 2, records the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> boats;  
 Judge 3, records the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> boats;     Judge 4, records the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> boats;  
 Judge 5, records the 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> boats.

**System 2.** The Chief Finish Line Judge asks three of his judges to record the finish order and the fourth and fifth judges to record the finish order of the last 4 or 5 boats only. Having one or two judges concentrating on the last boats to finish is very useful because in a close finish, a focussed record of the last boats eliminates those boats from the record of the first half of the race. However, it can be difficult because these judges have to allow the first boats to cross the line and then decide when to start their record.<sup>5</sup>

However, where photo-finish is used there may be as few as three judges appointed for this task.

## Timekeeping

Digital read-out quartz electronic timers are now normally used in place of mechanical watches but the same principles apply whichever bank of timers is used. There is a problem however with electronic timers in that they are susceptible to damp and will require special care in inclement weather. Some electronic timers have a 'split' function and memory so that more than one placing and finish time may be recorded on the same timer. However, use of this facility should be avoided as it leads to inaccurate records particularly in a close finish. Therefore, nine timekeepers are required to cover a lane/boat each. Immediately after the race each watch must be shown to the Chief Finish Line Judge who will make up the official record. No watch may be reset until the Chief Finish Line Judge is satisfied he has a complete and accurate record.<sup>6</sup>

In the absence of automatic electronic starting of all watches each judge is required to start their own timer independently. The Starter's signal to start is normally relayed by amplified radio or telephone. The judge must never anticipate this signal. The watch button must be operated (squeezed) only when the judge actually hears the start signal. Likewise, the finish of a boat must not be anticipated. The watch must not be stopped until the judge sees the bow of the boat breaking the finish line. The reaction times for

both start and finish must be the same and always the same. To anticipate either will result in inconsistencies with the operator's results as compared with other judges. It requires considerable skill and practice to achieve accurate results consistently. Should a watch fail to start correctly, the judge must inform the Chief Finish Line Judge without delay so the he can make sure the placing is covered.<sup>6</sup>

The rules require two systems of timing. In the absence of photo-finish each judge will need to time his assigned boat/lane with a timer in each hand and operate them together. When the times do not agree the longest or worst time is taken as the official time. The bony part of the index finger should always be used in operating timer/watch buttons.

### **Photo-Finish**

There are a variety of photo-finish systems used but they all follow the same basic principles. The camera takes a series of incredibly thin line pictures at a rate of 2000 times a second. The picture is of the finish line and nothing else so, in effect, the pictures are the opposite of a panoramic view. Placed next to each other the thin individual images record onto a computer the activity on the finish line at each split second. Through the computer monitor, times can be read with the use of the mouse to move a line marker to the bow of each boat and clicking the mouse. This tells the computer software to identify what time corresponds with this slice of image. Therefore, incredibly precise times are obtained of each boat as it crosses the finish line.

The rules do not permit the use of an ordinary video camera as a substitute for photo-finish because pictures are only recorded every 50<sup>th</sup> of a second and therefore are not sufficiently accurate in deciding a close finish. However, in a last resort the video finish is a most useful tool in assisting officials to make accurate decisions.

To minimise boats/competitors masking one another the camera must be sited in an elevated position to cover all nine lanes, but either a mirror system, or two cameras on opposite sides of the course, can be used to obviate masking.<sup>6</sup> However for World Championships or Olympic Games two photo-finish cameras are required to be sited on the tower side of the course. Ideally, the photo-finish should include all finishers no matter how long it takes them to finish. At the very least the record must show all boats that qualify for the next round from a heat or semi-final, and all boats in a final.

It is good practice for the Chief Finish Line Judge to be included in the photo-finish team to assist with reading the photograph, and to decide the placings and times. The Chief Official or Chief Judge must certify that the placings, and times, are correct before their official publication. In World Championship competitions the Chairman of the Jury may also be invited to view the photograph as it may avoid problems later. The rules require a copy of the photo-finish to be placed on the official notice-board in the event of a close finish between two or more boats.

The Competition Committee may decide that the times on the photo-finish are inaccurate. It requires co-operation, mutual respect and trust between all officials to solve such problems.<sup>6</sup> The times on the photo-finish may not be accurate because the system was

started manually instead of electronically through the Starter's signal. In such a case the winner's hand time becomes the official time for the winner but, if at all possible, the time intervals for all other places must be calculated from the photo-finish. Should such a malfunction occur in one of a group of heats or semi-finals of the same event, the same system must be applied to all that group of heats or semi-finals. In some events the fastest loser(s) go forward to the next round which is on time, not on placing. It is therefore vital that the same timing system is used for all the event heats or semi-finals in order to maintain consistency and fairness to competitors. If a copy of such a photo-finish is to be placed on the official notice-board the amended official timings must be clearly shown together with a note that the photo-finish was not started by the Starter's gun.

### **Tied Finishes**

If the photo-finish confirms the simultaneous arrival of two boats at the finish, both boats are placed in the best position as per this example:

1. Germany
2. France
2. Spain
4. Greece

### **Taking personal notes**

It is always a good idea to keep a notebook in which to record one's own experiences and observations gained during and after a competition. It serves to reinforce knowledge and experiences obtained, and will help the official improve his/her abilities.

**Rowland Jones**  
The British Canoe Union  
I.C.F. Canoe Sprint Official

### **REFERENCES**

2. "International Canoe Sprint Competition Rules 2011". Publisher: The International Canoe Federation.
5. David Littlewood "How to Judge Track Events" (1995). Publisher: UK Athletics.
6. Alan Tomkins "Timekeeping" (1987). Publisher: The Crowood Press for UK Athletics.