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To: General Chairs
Officials Chairs
Rules & Regulations Committee
Times & Recognition Committee
Board of Directors, USA Swimming
USA Swimming Officials
USA Swimming Coach Members

From: Clark R. Hammond, Chair Rules & Regulations Committee
Lisa Olack, Chair Times and Recognition Committee

Re: Use of the Dolphin Timing System

This memo addresses the use of the Colorado Timing Dolphin Timing System functioning in the Semi-Automatic Timing (Synchronized Start/Manual Stop) mode, which Colorado Timing describes as:

“Connect the starter unit to any CTS electronic start system. All stopwatches will start timing with the start system signal. Each stopwatch stops when the lane timer stops it. These times are wirelessly transmitted and saved for immediate access by your meet management program.”

Several weeks ago, we established a working group to review this timing system with the view of determining if it was acceptable for use at approved, sanctioned or observed swim meets. It should be noted at the outset that USA Swimming has already acknowledged the use of this system in non-sanctioned, virtual or other meets. In that regard, USA Swimming added a non-sanctioned (virtual) meet classification in SWIMS to help bridge the gap, during these trying times. We have added functionality on the website so there are times searches specific to meets/times from non-sanctioned meets. USA Swimming’s staff and volunteers are daily seeking to find ways to help teams when they don't have timing systems to run meets.

The working group has spent untold hours investigating this system and whether the system is reliable due to the wireless features so that any swims achieved using this system would be an official time usable for entry and recognition purposes.

The following USA Swimming Rules address the semi-automatic timing system:

Rule 102.24.2 B provides: “B Semi-Automatic — A timing system activated by a starting device and stopped by buttons pushed by timers at the finish touch of the swimmer.”

Rule 102.24.3 A (2) provides: “(2) Semi-Automatic, with three (3) or two (2) buttons per lane, each operated by a separate timer.”

Rule 102.24.3.B (2) provides: “(2) Semi-Automatic with one (1), two (2), or three (3) buttons, each operated by a separate timer.”

Rule 102.17.3 provides, in part: “Lane Timers — Officials assigned as Lane Timers may simultaneously operate two dissimilar devices (one watch and one button) but not two similar devices (two watches or two buttons).”

Rule 102.17.3 B provides: “B Stand directly over the assigned lane at the finish to observe a touch above, at, or below the surface of the water and stop the watch and/or push the semi-automatic system button when any part of the swimmer’s body touches the wall.”

Furthermore, Rule 102.24.4 addresses how to determine the official time and speaks to buttons. See also, Appendix 1.

The "buttons" described in the above Rules are hard wired to a timing console. The Colorado timing system uses a cable to which the starter system, the touch pads and the buttons are attached. This is a closed wired system. The semi-automatic mode is operated without touch pads. When the semi-automatic system is used, the buttons are the primary and a manual watch or watches are used as backups.

The Dolphin semi-automatic system is a wireless closed mesh system. Unlike the hardwire system with a single timing console and buttons, the Dolphin system has multiple timing components using wireless communications. This fact differentiates the two systems and brought into question the consistency, reliability, and functionality of the Dolphin system to properly report official times.

The essential components of the Dolphin System are the following:

1. Starter Unit – (Connected to the Start System) THE TIMEKEEPER – Responsible for sending the start signal and synchronizing the time between all devices during the race.
2. Base Unit – Connected to the PC – Responsible for recording and writing the times so the software can save them and also constantly synchronizing the time between all devices during the race.
3. Watches – Responsible for reporting the time when the button is pressed at the finish and also synchronizing the time between all devices during the race.

Each watch is itself a mini timing system and when run with two per lane means there are at least 12 (6 lane pool), 16 (8 lane) or more microprocessors gathering the times. Once started, the watches continuously synchronize wirelessly "over the air" with the starter unit and the base unit. The base unit is attached to a computer with software which later speaks with Hytek or some similar program.

The system is started by an electronic start system, such as the Infinity or Championship Start System, which has the starter unit attached to it and sends a wireless signal to each watch. Once the race is completed, the watches send the times over the air to the base unit. We understand that once the race is completed and the information sent to the base unit, the information is not stored in the watches.

Based on our review, the chair of the Rules and Regulations Committee find sufficient grounds to grant a waiver of the requirements of Rule 102.24.3 concerning the terminology regarding the use of buttons in a hardwired system. This waiver continue relates to the use of the Dolphin Timing System (used in the Semi-Automatic Timing (Synchronized Start/Manual Stop) mode until August 31, 2021¹, during which

¹ The Dolphin Timing System has two other modes: (1) Manual Synchronized Start/Manual Stop: The official with the starter unit starts all stopwatches in conjunction with the whistle. Each stopwatch stops when the lane timer stops it; and (2) Manual Start/Manual Stop: Lane timers start and stop the stopwatches independently for a fully manual

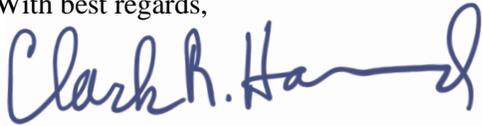
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time data will be collected to further verify the functionality, reliability, and consistency of the system and to address possible changes to the Rules and Regulations to allow for this type of wireless timing systems. See Rule 202.4.13

Should you wish to further discuss this waiver, please do not hesitate to contact me.

With best regards,



Clark R. Hammond
Chair, USA Swimming Rules & Regulations Committee



Lisa Olack
Chair, Times & Recognition Committee

cc. Mickey Smythe, Secretary, USA Swimming Rules & Regulations Committee

system. The Manual Synchronized Start/Manual Stop is not approved as a semi-automatic system, but the manual start/stop is considered similar to traditional stop watches and is acceptable for that use.