

Guidelines for Timing Judges

- A.** Button times are the primary time. Always use button time(s), if available, unless you have good reason to believe all available button times are invalid.
- B.** Watch times are only back-up times. They are used only (a) to determine which of two widely spread button times is accurate, and (b) if you conclude no valid button times are available, to establish official time. Never mix button and watch times.
- C.** When dealing with two valid times of the same type (2 buttons or 2 watches), take the average of the two times. In taking the average of two times, you truncate at the hundredths place without rounding. E.g. 32.02 and 32.09 yields 32.05 (not 32.06).
- D.** A discrepancy of about 0.3 seconds or less does not require further inquiry. A discrepancy of more than about 0.3 seconds generally requires inquiry into the possible invalidity of one of the times.
- E.** When the two button times differ by more than 0.3 seconds, a malfunction may have occurred. You will then have to examine back-up (watch) times, and perhaps order of finish, to decide whether one or both button times are invalid.
- F.** The starter, referee, or some other designated official ideally should record the **order of finish** – the order in which the swimmers finish each heat. This is not a sweep judge and does not automatically override times; however, order of finish may help determine which of two widely discrepant button (or watch) times should be considered valid.
- G.** If you conclude that the time from a particular button or watch is invalid, analyze the timing data as if the invalid piece of data did not exist. For example, if you determine one of two buttons is invalid, the timing data is analyzed as if only one button time existed.

Typical Situations for a Specific Lane

1. Two button times 0.3 seconds or less apart

The average of the two button times is the official time. (Example 1)

2. Two button times more than 0.3 seconds apart

Check watch times:

- a. If watch times support one button over the other, “good” button is official time. (Example 2)
- b. If one watch consistent with one button, and other watch consistent with other button, check order of finish:
 - i. If you determine one of the buttons is invalid, the other valid button will be the official time. (Example 3)
 - ii. If you can’t determine that one button is invalid, use the average of the two buttons as the official time. (Example 4)

3. Only one button time available:

Check the watch times:

- a. If average watch time 0.3 seconds or less from the button time: the button time is the official time. (Example 5)
- b. If average watch time more than 0.3 seconds from button time, check order of finish to determine whether a button or watch time is invalid. If one is invalid, ignore that datum. If none are invalid, then:
 - i. If one watch time 0.3 seconds or less from the button time, button time is the official time. (Example 6)
 - ii. If the two watches are 0.3 seconds or less from each other (and neither watch is 0.3 seconds or less from button), usually the average watch time is the official time. (Example 7)
 - iii. If the button and two watch times are all more than 0.3 seconds from each other (and button was not invalidated by order of finish), button time is the official time. (Example 8)
- c. If only one watch time available, check order of finish:
 - i. If button time not invalidated based on order of finish, button time is official time
 - ii. If button time invalid, watch time is official time (unless watch also invalid).

4. No button time available

Check watch times:

- a. If two watches 0.3 seconds or less from each other, average of two watches is official time. (Example 9)
- b. If two watches more than 0.3 seconds from each other, check order of finish.
 - i. If only one watch time is valid, that’s the official time;
 - ii. If can’t determine that one watch is invalid, use average of two watches as official time.
- c. If only one watch time available, check order of finish, but generally use the one watch time as the official time.

Timing Judge Examples**Example 1**

Button A	33.42	Watch A	33.45	
Button B	33.21	Watch B	33.19	Official Time <u>33.31</u>

Example 2

Button A	43.12	Watch A	43.14	
Button B	44.06	Watch B	43.19	Official Time <u>43.12</u>

Example 3

Lane 3:Button A	33.42	Watch A	33.45	
Button B	33.11	Watch B	33.09	

Lane 4 Official Time 33.28

Lane 5 Official Time 32.90

Order of Finish: 5 – 3 - 4

Lane 3 Official Time 33.11**Example 4**

Lane 3:Button A	54.23	Watch A	54.29	
Button B	54.65	Watch B	54.72	

Lane 4 Official Time 54.90

Lane 5 Official Time 53.95

Order of Finish: 5 – 3 - 4

Lane 3 Official Time 54.39**Example 5**

Button A		Watch A	33.45	
Button B	33.21	Watch B	33.19	Official Time <u>33.21</u>

Example 6

Button A	28.46	Watch A	28.66	
Button B		Watch B	28.94	Official Time <u>28.46</u>

Example 7

Button A	28.46	Watch A	28.05	
Button B		Watch B	27.90	Official Time <u>27.97</u>

Example 8

Button A		Watch A	46.12	
Button B	45.73	Watch B	45.42	Official Time <u>45.73</u>

Example 9

Button A		Watch A	37.24	
Button B		Watch B	37.38	Official Time <u>37.31</u>

Selected USA Swimming Timing Rules for RMAL Dual Meets Using CTS

102.24 TIMING

.1 Requirements for Official Time

B Timing Resolution – All timing systems, including manual watches, shall have a resolution of one one-hundredth of a second (0.01 second). Times from all systems shall be recorded to hundredths of a second. The digits representing thousandths shall be dropped with no rounding.

E Use of Secondary ... Times – Secondary ... times shall be recorded but shall not be used except to corroborate or correct missing or inaccurate primary ... results.

.2- Timing Systems – Every race in a swimming competition shall be timed with one or more of the following systems, listed in their preferred order of use:

A Automatic -- (not available for RMAL dual meets)

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.

C Manual – A timing system consisting of individual lane timers, each operating a manual watch that is both started and stopped by the timer

.3 Timing System Designation – Timing systems shall be designated in the order in which results are used as follows:

A Primary System – The primary system shall determine the official time of each swimmer unless a comparison of the primary with secondary and/or tertiary system times indicates a malfunction of the primary system. A primary system shall always be in place and shall consist of one of the following, listed in their preferred order of use:

- (1) Automatic Timing (not available for RMAL dual meets).
- (2) Semi-Automatic, with three (3) or two (2) buttons per lane, each operated by a separate timer.
- (3) Manual, with three (3) watches per lane, each operated by a separate timer.

B Secondary System – If manually operated watches are not the primary system, a secondary system of precedence equal to or lower than the primary system must be used. The secondary system may be:

- (1) Video cameras (not available for RMAL dual meets)
- (2) Semi-Automatic (not available for RMAL dual meets)
- (3) Manual with one (1), two (2) or three (3) watches per lane, each operated by a separate timer.

.5 Determining Official Time

A Automatic Timing (not available for RMAL dual meets)

B Semi-Automatic and Manual Timing – Whenever semi-automatic or manual timing is used, the times shall be determined as follows:

- (1) If two of the three button or watch times agree, that shall be the time for that timing system.
- (2) If three valid buttons or watches disagree, the time of the intermediate button or watch shall be the time for that timing system.
- (3) If only two button or watch times are available, the time shall be the average of those two buttons or the average of the two watch times. The digits representing thousandths of a second shall be dropped with no rounding.
- (4) If only one button or watch time is available, the time of that button or watch shall be the time for that timing system provided it is supported by other information.

C Primary Timing System Malfunction – A malfunction may have occurred if:

- (1) The difference between the time obtained by the primary system and the back-up system(s) is approximately .30 second or greater; or
- (2) The place judge(s) reports a different of finish (not applicable in RMAL); or
- (3) It is reported the swimmer missed the touchpad or had a soft touch. (not applicable in RMAL)