



Electronic Timing Certification Process

General Overview

1. Register with Oregon Swimming – Training Record will be mailed to you.
2. Begin volunteering at a meet.
3. Sometime in the first 20 hours of training, attend an ET clinic.
4. After 20 hours of training – get 2 positive recommendations from certified ET's.
(recommendations do not need to be from trainers)
5. Forward training record and last two evaluation criteria to Electronic Timing Chair. Await confirmation to take the on-line test.
6. Take and pass the on-line open book test.

Minimum Training Requirements

1. At least 2 of the first 6 hours must be with a designated ET trainer.
2. 10 observed hours on timing console.
3. 10 observed hours on times verification.
4. Introductory session
5. Attend Electronic Timing Clinic.
6. 2 sessions at sanctioned 12 & under meet.
7. Work a non-home meet.
8. Successfully complete a heat or lane malfunction calculation.
9. Work one session with the Hy-Tek operator.
10. 2 consecutive positive recommendations from 2 different trainers (after 20 hours).



Electronic Timing Officials' Clinic Outline Oregon Swimming, Inc.

Introductions:

Training Objectives:

Familiarize trainees with the requirements and expectations for ET officials.

Why Certified ET Officials?

Other than winning the race or scoring points for their team, the most important part of a swimmer's race is knowing with confidence how long he or she took to swim that event, i.e. his/her official time. Although there is usually only one first place winner in a race, each swimmer who participates legally achieves an official time. The swimmer's time could meet the qualification standards for future competition, set a local or national record, or it could simply be that swimmer's personal best. OSI certifies ET officials to be responsible for providing each swimmer with an accurate and valid time.

"No swimmer shall be required to re-swim a race due to equipment failure which results in unrecorded or inaccurate time or place." (USA Swimming rule 102.16.4D)

Three functions of ET officials:

1. Participate as an active member of the swim meet officiating crew.
2. Correctly operate the timing system equipment (Timing equipment operator – USA Swimming Rule 102.16.3D).
3. Correctly determine and document the official times (Timing Judge – USA Swimming Rule 102.16.3E).

Becoming an ET official:

1. Register as a non-athlete member (official category) of OSI/USA swimming. You will be sent an official rule book from USA Swimming. Section 102.16 pertains to Electronic Timing. **Read this section.**
2. Complete the ET clinic any time before completion of required deck hours.
3. Work the necessary 12 & under meets.
4. Work the required non-home meet.
5. Successfully complete a lane or heat malfunction calculation.
6. Work the required session with Hy-Tek.
7. Submit training log to ET Officials' Chair.
8. Take and pass the open book certification test when training is completed.

Member of the Officiating Crew

OSI Officiating Philosophy

1. As officials, we help conduct swim meets to maintain fair and equitable conditions of competition and promote uniformity in the sport so that no swimmer has an unfair advantage over another (Preamble to Technical Rules).
2. One set of rules applies to all swimmers, no matter what their age or ability level.
3. The swimmer always gets the benefit of the doubt.
4. Officials demonstrate impartiality and professionalism on deck through uniform, posture, facial expressions, interaction with others on deck and language. Officials should never draw attention to themselves through their actions or appearance; the swimmers should be the focus of everyone's attention.

ET's are one of many:

1. A swim meet requires many types of officials: Referees, Starters, Stroke & Turn Judges and Electronic Timing Judges. Make a point of meeting as many of the other officials as possible.
2. Wear the standard official's uniform: white colored polo style shirt/blue shorts (mid thigh or longer) pants (or skirt for women), white shoes and socks. Pants or skirts are usually expected when working finals at a championship meet. Please do not wear blue jeans, tank tops, t-shirts, tight fitting (bicycle) or too short shorts, or clothes advertising any product including club logos. Don't wear clothing that draws attention to you.
3. Certification badges are always worn when working at meets. The engraved nametags may be worn in conjunction with, but not in place of, OSI certification badges.
4. Sign in on the official's roster in the hospitality room and attend the officials meeting – please be on time for the meeting.
5. Work as part of a team: be in position, monitor breaks, and communicate.
6. Document the hours worked on your certification record. Expenses (travel, lodging, food) incurred as part of volunteering as sanctioned meets are tax deductible.

ET's instruct/coach other timing and starting personnel:

1. Prior to start of first event, instruct timers in proper timing procedures. As timers change during the meet continue to provide polite instruction if a timing problem develops. Coordinate with the head timer, who is often in the best position to help inexperienced timers.
 - Use the first finger rather than the thumb to start and stop watches and to press buttons.
 - Start watch at the strobe flash.
 - Stop watch and button when touch is actually seen, don't anticipate the touch.
 - No timer may operate both watches or both buttons.
 - Record watch times on timer's event sheet.
2. Request head timer to collect and deliver the timer's event sheets as soon as possible after an event is finished.
3. Remind Deck Referee/Starter how to tell when system is ready for the next heat.
4. Discuss with Deck Referee how and when you will receive DQ slips.

Correctly Operate Timing System Equipment

Timing System:

Here is Oregon, Colorado Timing Systems and Daktronics Timing Systems are the standard timing equipment. ET's are expected to know how to set up and operate this equipment. Allow plenty of time before the meet to set up all the equipment and ensure it is in working order. The home meet crew usually does this, but you should always look it over. Detailed manuals for the Colorado Timing Systems equipment can be found on their web site:

<http://www.colotime.com/customersupport/manuals.asp>

Starting Equipment

1. Starting system console. Ensure the start cable (on the Colorado) is connected to the "NO" (think "Not Omega") plug. Ensure speakers are connected to the starting console and are working. Ensure the starting microphone is attached and working.
2. Main timing cable. Ensure the starter cable is plugged into the start plug. Ensure all touch pads are plugged into the "prime" plug. Ensure all buttons are plugged into either the "a", "b", or "c" plug.
3. System console. Ensure the main timing cable is firmly attached. Ensure the scoreboard is connected and working. Ensure the printer is connected and working. Ensure the console is communicating with Hy-Tek computer. Ensure the console operator has an unobstructed view of the start/finish. The console requires periodic maintenance, such as battery replacement and return to the manufacturer. Make sure to recheck settings when the manufacturer returns the console.

Operating the Equipment

1. Setup or verify the setup of the system console – events entered, meters vs. yards, number of buttons, etc.
2. Perform a test start to ensure all equipment is working properly.
3. Reset for start.
4. Start and run race. In the case of a recall (unusual), leave timer running until the last swimmer has stopped. If necessary, manually start the system and blank the scoreboard.
5. Ensure race parameters are correct: lanes on/off, event, heat, and distance (do not make the console beep until after the start, as it may distract the swimmers).
6. Record race number, “no shows” and lane changes on the ET heat sheet. Observe touches adding, subtracting, or finish arming as necessary. Watch carefully for extra touches following relay exchanges.
7. Store, print, reset and advance the heat or event.

With practice, running the console becomes fairly automatic; however, it is very important that the console operator focus on the console and keeping the heat sheet up to date as far as no shows, additions and combined heats are concerned. Many problems can arise at a meet. Some of these problems could be (but are not limited to) equipment or power failure, miscalculations because of missed touches in distance events, too many or not enough touches in relays or bad touches made by younger swimmers. Things can happen quickly. It is important to remain calm, stay focused, think fast and document anything out of the ordinary.

Determining the Official Time

Official Times:

1. Must be achieved in a USA Swimming sanctioned or approved meet.
2. May be recorded in:
 - A preliminary or final heat.
 - A swim off
 - A lead off relay split
 - Initial distance within a longer event
 - Time trials

Types of Timing Systems (in order of accuracy)

1. Automatic – Provides common start to all lanes and to timing console. Finish on touch pads.
2. Semi-Automatic – Commons start, button finish.
3. Manual – Manual digital watches.

Timing System Designation

1. Primary – The most accurate timing system available. Could be automatic, semi-automatic or manual. This is the official time for the race unless comparison with secondary system indicates a malfunction.
2. Secondary – This is a back-up to the primary system, i.e. semi-automatic (buttons) if primary is automatic (pads)
3. Tertiary – At least one watch must be used as a back up for the automatic or semi-automatic system.

Determination of official times:

1. Timing resolution is hundredths, not thousandths of a second. In any computation, thousandths are dropped with no rounding.
2. The time from a properly operating primary timing system is the official time:
 - Automatic timing system – use the pad time
 - Semi-automatic or manual timing system. If three watches or buttons are used, the official time is the middle time (If two are identical, that is the middle time). If two buttons or watches are used, the official time is the average of those two. If a single watch is all you have, then that is the official time (not a good idea!)
3. The primary timing system is operating properly if a secondary or tertiary time confirms by 0.30 seconds or less.

Automatic timing system malfunction:

This is indicated by a difference of 0.31 seconds or more between the pad and button times. If two buttons are available and they confirm each other, i.e. are within 0.30 seconds of each other, then they are used to compute the official time. Please note that if the two confirmed buttons are slower than the pad, further research is necessary – this could mean that the timers were not paying attention. If only one button is available, then the watch times must be checked to determine whether the pad or the button time is correct. When comparing pad and button difference, be sure to check each button individually against the pad time (if two buttons are available) – do not use the average computed by the timing system. If one button confirms the pad time, then the pad time is the official time.

Adjustment for the timing system difference (rule 102.16.5D):

This calculation is not necessary when using button times from the Colorado system, as it automatically subtracts 0.15 seconds “human reaction” time from the button times. With Omega and Daktronics, if there is a primary system malfunction (i.e. more than 0.30 seconds difference between pad and button) it is necessary to calculate the average difference between the valid back-up times of the lane in question. For all systems, if watch times are used, it is necessary to calculate the pad/watch difference in that heat (or a heat before or after) and use that difference to adjust the watch time that is being used.

Heat Malfunction:

1. If the console is started manually, all the automatic times will be inaccurate.
2. For each lane, compute the valid times using only pads and buttons (if no buttons support the pad or each other, skip that lane).
3. Calculate the average difference between the watch times and “valid” times in all those lanes.
4. Add this average difference to the valid primary or back-up times on all lanes to obtain the official time. In the other lanes, add this difference to all pad and button times, and then use the watch times to decide the official time.
5. Be sure to check that the order of finish remains the same.
6. The referee should always be informed of a heat malfunction and sign off on the mathematical calculation.

Lane Malfunction:

If one lane in the heat has an error, i.e. nothing electronic either because the lane was not finished before the timer was reset, or not turned on for the race, then the average difference (as above) must be calculated on all the other lanes and that difference added to the lane with only watch times.

Problem Solving:

Many problems can occur as you determine the official time. No buttons pressed or pressed seconds after or before a race ends. No watches, or all watches and buttons wildly disagreeing with each other. Order of finish can help as well as coach’s watches – here you have to use your best judgment. After investigating the circumstances, always consult with the referee whenever there is an unusual timing situation.

Documenting the Official Time:

On the timing system console printout, indicate the official time. Indicate any no shows and lane changes. Indicate and DQ’s and staple the DQ slip to the printout. Document any unusual timing situations (have the referee initial those). After documenting the official times, initial the paperwork. Forward the paperwork to the Hy-Tek operator to merge results and compute the order of finish for each event.

Personnel Requirements:

Generally for Electronic Timing, there should be at least two and ideally three officials working at a time. One official should operate the console, another do the paperwork and the third designated as the runner. If there is a runner, that person can help with the paperwork and get watch times when needed or help with other things that come up. If there are more than three people available to work at the meet, a rotation schedule offers all officials breaks throughout the meet.

Electronic Timing – System Timing Malfunction Calculation

Lane #	Pad Time	Button Times		Watch Times		Average Watch	Official Time Before Adjust	Watch Minus Pad/button	Official Time
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Event # _____ **Heat #** _____ **Total Difference** _____
Average Difference _____

Calculated by: _____

Electronic Timing – System Timing Malfunction Calculation

Lane #	Pad Time	Button Times		Watch Times		Average Watch	Official Time Before Adjust	Watch Minus Pad/button	Official Time
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Event # _____ **Heat #** _____ **Total Difference** _____
Average Difference _____

Calculated by: _____

Worksheet – Heat/Lane Malfunction - Student

Electronic Timing – Lane Malfunction Calculation

Lane #	Pad Time	Button Times		Watch Times		Average Watch	Official Time Before Adjust	Watch Minus Pad/button	Official Time
1	38.75	38.95	38.74	42.44	42.38				
2	37.26	37.04	37.18	40.78	40.62				
3	36.58	35.98	36.02	39.58	39.52				
4	35.92	35.85	35.88	39.41	39.45				
5	34.74	34.71	34.78	38.55	38.51				
6	35.52	34.98	38.22	38.57	38.62				
7									
8									
9									
10									

Event # _____ Heat # _____ Total Difference _____
 Average Difference _____

Calculated by: _____

Process:

Calculate average watch times.

Official times before adjustment = pad times that are verified by buttons, of button average if the two buttons verify each other.

If the buttons or button times don't verify the pad time, don't use that lane in calculations.

Calculate the average difference between watch and pad or watch and button.

Add average difference to each verified time for the official time.

Lane 6 – The buttons do not verify the pad (or each other). Take the difference and add it to both and come up with a time that is verified by both watches.

Heat/Lane Malfunction Examples - Student

Example # 1

Lane #	Pad Time	Button Times		Button Average	Watch Average	Official Time	Order of Finish
1	21.23	21.28	21.42		21.24		
2		20.03	20.07		20.06		
3	20.15	20.00	19.79		19.98		
4		20.13	20.87		20.10		
5		22.25	22.45		22.22		
6	22.35	22.30	24.58		22.28		

Calculated by: _____ Event # _____ Heat # _____

Example # 2

Lane #	Pad Time	Button Times		Button Average	Watch Average	Official Time	Order of Finish
1	1.09.10	1.08.90	1.12.56		1.09.05		
2	1.06.70	1.06.12	1.06.04		1.06.33		
3	1.06.24	1.06.01	1.05.97		1.06.23		
4	1.06.62	1.06.34	1.06.22		1.06.58		
5	1.07.09	1.06.87	1.06.97		1.07.07		
6	1.07.32	1.07.15	1.07.15		1.07.32		

Calculated by: _____ Event # _____ Heat # _____

Example # 3

Lane #	Pad Time	Button Times		Button Average	Watch Average	Official Time	Order of Finish
1	2.02.25	2.02.65	2.02.99	2.02.82	2.02.55		
2		2.02.43	2.10.43	2.06.93	2.02.55		
3	2.00.33	2.00.38	2.00.43	2.00.40	2.00.29		
4	1.59.22				1.59.13		
5	2.01.43	2.01.10	2.00.49	2.00.79	2.01.01		
6	2.03.13	2.03.03	2.03.10	2.03.06			

Calculated by: _____ Event # _____ Heat # _____

CTS 1 - Student

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6
BACKUP	13.46	17.43	21.23	26.11	19.90	14.26

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===== Race Summary ===== Race 001 =====

Colorado Time Systems

25 Yards
Event 999 Heat 9

-----By Lane-----
Lane Place Time
1 1 13.10 (13.46)
2 3 17.21
3 4 21.04
4 6 25.87
5 5 21.57 (19.90)
6 2 15.73 (14.26)

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Starter OOF 1, 6, 2, 5, 3, 4

Watch times:

Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6
13.25	17.25	22.14	26.01	19.87	14.52

CTS 2 - Student

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
Button	55.41	48.92	44.21			31.14	29.92	
Button	55.37	48.84		40.76			35.69	56.28
Button			44.21	41.22		42.25		12.27
BACKUP	55.39	48.88	44.21	40.99		36.69	32.80	34.27

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===== Race Summary ===== Race 002 =====

Colorado Time Systems

25 Yards
 Event 999 Heat 10
 (002) Saturday 5-10-03 10:19.47 am

-----By Lane-----

Lane	Place	Time	
1	5	55.51	
2			(48.88)
3	4	44.03	
4	3	41.72	(40.99)
5			
6	2	34.42	(36.69)
7	1	33.00	(32.80)
8	6	56.17	(34.27)

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Starter OOF 6, 7, 3, 4, 2, 1, 8

Watch times:

Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
55.32	48.97		40.87		31.22	33.05	56.32
55.67	48.83	44.07	40.63	n/s	31.11	32.81	56.28

CTS 3 - Student

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
Button	42.26	35.15		25.22	28.77	20.18		
Button	42.29	34.12	28.46	25.23	19.78			
Button						20.09		
BACKUP	42.26	34.63	28.46	25.22	24.27	20.13		

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 ===== Race Summary ===== Race 027 =====

Colorado Time Systems

8 & Under Girls – 25 Yards Backstroke
 Event: 23 Heat: 3
 (027) Saturday 5-10-03 10:24.15 am

-----By Lane-----

Lane	Place	Time	
1	7		(42.27)
2	5		(34.63)
3	4	22.03	(28.46)
4	1	16.78	(25.22)
5	3	19.62	(24.27)
6	2	19.58	(20.13)
7			
8	6	42.12	

=====
 Starter OOF 6, 5, 3, 4, 2, 8, 1 On original heat sheet, this is a full heat.

Watch times:

Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
42.37	35.11		25.49	19.99	20.59		
42.52	34.08	29.92	25.41	28.42		n/s	"oops" - where did this swimmer come from?

Coach times

- Lane 2 – “missed it”
- Lane 3 – 22.03
- Lane 6 – 19.42
- Lane 8 – 41.98

Worksheet – Heat/Lane Malfunction - Trainer

Electronic Timing Lane Malfunction Calculation

Lane #	Pad Time	Button Times		Watch Times		Average Watch	Official Time Before Adjust	Watch Minus Pad/button	Official Time
1	38.75	38.95	38.74	42.44	42.38	42.41	38.75	3.66	42.34
2	37.26	37.04	37.18	40.78	40.62	40.70	37.26	3.44	40.85
3	36.58	35.98	36.02	39.58	39.52	39.55	36.00	3.55	39.59
4	35.92	35.85	35.88	39.41	39.45	39.43	35.92	3.51	39.51
5	34.74	34.71	34.78	38.55	38.51	38.53	34.74	3.79	38.33
6	35.52	34.98	38.22	38.57	38.62	38.59			38.57
7									
8	39.11	38.57	42.81						
9									
10									

Event # _____ Heat # _____ Total Difference 17.95
 Average Difference 3.59

Calculated by: JEM

Process:

Calculate average watch times.

Official times before adjustment = pad times that are verified by buttons, of button average if the two buttons verify each other.

If the buttons or button times don't verify the pad time, don't use that lane in calculations.

Calculate the average difference between watch and pad or watch and button.

Add average difference to each verified time for the official time.

Lane 6 – The buttons do not verify the pad (or each other). Take the difference and add it to both and come up with a time that is verified by both watches.

When the average difference of 3.59 is added to both buttons in lane 6, the adjusted button times are as shown in lane 8.

Heat/Lane Malfunction Examples - Trainer

Example # 1

Lane #	Pad Time	Button Times		Button Average	Watch Average	Official Time	Order of Finish
1	21.23	21.28	21.42	21.35	21.24	21.23	4
2		20.03	20.07	20.05	20.06	20.05	1
3	20.15	20.00	19.79	19.89	19.98	20.15	3
4		20.13	20.87	20.50	20.10	20.13	2
5		22.25	22.45	22.35	22.22	22.35	5
6	22.35	22.30	24.58	23.44	22.28	22.35	5

Calculated by: JEM Event # _____ Heat # _____

Notes:

Lane 1	Both buttons confirm each other and the pad (official time).
Lane 2	Both buttons confirm each other and the watch. Button average is the official time.
Lane 3	While both buttons confirm one another, only one confirms the pad time. Button average confirms pad time (official time).
Lane 4	Button times do not confirm one another; therefore, button average is not usable. Watch average does confirm first button time (official time).
Lane 5	Both buttons confirm each other and the watch. Button average is the official time.
Lane 6	Buttons do not confirm one another; therefore, button average not usable. One button and watch average confirms the pad (official time).

Example # 2

Lane #	Pad Time	Button Times		Button Average	Watch Average	Official Time	Order of Finish
1	1.09.10	1.08.90	1.12.56	1.10.73	1.09.05	1.09.10	6
2	1.06.70	1.06.12	1.06.04	1.06.08	1.06.33	1.06.08	1
3	1.06.24	1.06.01	1.05.97	1.05.99	1.06.23	1.06.24	2
4	1.06.62	1.06.34	1.06.22	1.06.28	1.06.58	1.06.62	3
5	1.07.09	1.06.87	1.06.97	1.06.92	1.07.07	1.07.09	4
6	1.07.32	1.07.15	1.07.15	1.07.15	1.07.32	1.07.32	5

Calculated by: JEM Event # _____ Heat # _____

Notes:

Lane 1	Buttons don't confirm one another; therefore, button average is not usable. One button (plus watch average) confirms pad (official time).
Lane 2	While both buttons confirm each other, neither will confirm the pad. Average watch time confirms the average button time (official time).
Lane 3	Both buttons confirm each other and the pad (official time).
Lane 4	While both buttons confirm each other, neither button nor the button average confirms the pad time. Average watch time confirms the pad (official time).
Lane 5	Both buttons confirm each other and the pad (official time).
Lane 6	Both buttons confirm each other and the pad (official time).

Example # 3

Lane #	Pad Time	Button Times		Button Average	Watch Average	Official Time	Order of Finish
1	2.02.25	2.02.65	2.02.99	2.02.82	2.02.55	2.02.65	5
2		2.02.43	2.10.43	2.06.93	2.02.55	2.02.43	4
3	2.00.33	2.00.38	2.00.43	2.00.40	2.00.29	2.00.33	2
4	1.59.22				1.59.13	1.59.22	1
5	2.01.43	2.01.10	2.00.49	2.00.79	2.01.01	2.01.10	3
6	2.03.13	2.03.03	2.03.10	2.03.06		2.03.13	6

Calculated by: JEM Event # _____ Heat # _____

Notes:

Lane 1	Neither button nor the button average confirm the pad time. Watch average confirms first button (official time).
Lane 2	Buttons don't confirm each other; therefore, the button average is not usable. The watch average confirms the first button (official time).
Lane 3	Both buttons confirm each other and the pad (official time).
Lane 4	The watch average confirms the pad (official time).
Lane 5	Neither button nor the button average confirm the pad time. Watch average confirms first button (official time).
Lane 6	Both buttons confirm each other and the pad (official time).

CTS 1 - Trainer

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6
BACKUP	13.46	17.43	21.23	26.11	19.90	14.26

=====

===== Race Summary ===== Race 001 =====

Colorado Time Systems

25 Yards
Event 999 Heat 9

-----By Lane-----				Official
Lane	Place	Time		Times
1	1	13.10	(13.46)	13.10
2	3	17.21		17.21
3	4	21.04		21.04
4	6	25.87		25.87
5	5	21.57	(19.90)	19.90
6	2	15.73	(14.26)	14.26

JEM

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Starter OOF 1, 6, 2, 5, 3, 4

Watch times:

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6
	13.25	17.25	22.14	26.01	19.87	14.52

<u>Lane</u>	<u>Official Times</u>
1	13.10 – Pad confirmed by watch times.
2	17.21
3	21.04
4	25.87
5	19.90 – Button confirmed by watch times.
6	14.26 – Button confirmed by watch times.

Record

- No-shows
- DQs
- Lane changes, etc.
- Initial sheet

CTS 2 - Trainer

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
Button	55.41	48.92	44.21			31.14	29.92	
Button	55.37	48.84		40.76			35.69	56.28
Button			44.21	41.22		42.25		12.27
BACKUP	55.39	48.88	44.21	40.99		36.69	32.80	34.27

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===== Race Summary ===== Race 002 =====

Colorado Time Systems

25 Yards
 Event 999 Heat 10
 (002) Saturday 5-10-03 10:19.47 am

-----By Lane-----				Official
Lane	Place	Times		Times
1	5	55.51		55.51
2			(48.88)	48.88
3	4	44.03		44.03
4	3	41.72	(40.99)	40.76
5				N/S
6	2	34.42	(36.69)	31.14
7	1	33.00	(32.80)	33.00
8	6	56.17	(34.27)	56.17

J.C.M.

Starter OOF 6, 7, 3, 4, 2, 1, 8

Watch times:

Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
55.32	48.97		40.87		31.22	33.05	56.32
55.67	48.83	44.07	40.63	n/s	31.11	32.81	56.28

Lane Official Times

- 1 55.51
- 2 48.88 – Buttons confirm each other. Button average confirmed by watch times.
- 3 44.03
- 4 40.76 – Buttons do not confirm each other. One button confirmed by watch times.
- 5 N/S
- 6 31.14 – Buttons do not confirm each other. One button confirmed by watch times
- 7 33.00 – Pad confirmed by one button and watch times.
- 8 56.17 – Pad confirmed by one button and watch times.

Note: Starter OOF is not confirmed by times. Starter OOF not correct.

Record

- No-shows
- DQs
- Lane changes, etc.
- Initial sheet

CTS 3 - Trainer

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
Button	42.26	35.15		25.22	28.77	20.18		
Button	42.29	34.12	28.46	25.23	19.78			
Button						20.09		
BACKUP	42.26	34.63	28.46	25.22	24.27	20.13		

=====
 ===== Race Summary ===== Race 027 =====

Colorado Time Systems

8 & Under Girls – 25 Yards Backstroke
 Event: 23 Heat: 3
 (027) Saturday 5-10-03 10:24.15 am

-----By Lane-----				Official	
Lane	Place	Times		Times	
1	7		(42.27)	42.27	DQ
2	5		(34.63)	34.63	
3	4	22.03	(28.46)	22.03	
4	1	16.78	(25.22)	25.22	
5	3	19.62	(24.27)	19.62	
6	2	19.58	(20.13)	19.58	
7				N/S	
8	6	42.12		42.12	Swimmer from H2, L8
				<i>JEM</i>	Swimmer H3, L8 = N/S

=====
 Starter OOF 6, 5, 3, 4, 2, 8, 1 On original heat sheet, this is a full heat.

Watch times:

Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
42.37	35.11		25.49	19.99	20.59		
42.52	34.08	29.92	25.41	28.42		n/s	"oops" -

Coach times

Lane 2 – “missed it” Referee informs ET where did this swimmer come from?
 Lane 3 – 22.03 Swimmer from H2, L8 swam in H3, L8
 Lane 6 – 19.42 Swimmer in Lane 1 is DQ
 Lane 8 – 41.98

<u>Lane</u>	<u>Official Times</u>
1	42.27 - Confirmed button average – DQ
2	34.63 - Take button average. One watch confirms each button. Confirmed by OOF.
3	22.03 - Confirmed by OOF. Only one watch which doesn't agree. Coach wrote time from board.
4	25.22 - Two confirmed buttons, OOF. Over swimmer starts – pad activated when previous swimmer exited.
5	19.62 - Confirmed by one button, OOF.
6	19.58 - Confirmed by coach time, OOF.
7	N/S
8	42.12 - No watches. Confirmed by coach watch, OOF. Swimmer H2 L8. Swimmer H3, L8 = N/S



OREGON SWIMMING, INC. Training Record for Electronic Timing Trainee

Name: _____ Address: _____ Club: _____

Phone: _____ Email Address: _____

At each meet, the official with whom you worked with the most, must sign your training record and complete [an evaluation criteria](#). At least 2 of the first 6 hours must be with a designated ET trainer.

	Date	Signature of Certified ET
Introductory Session	_____	_____
Clinic Attended (in 1 st 20 hours)	_____	_____
12 & Under Meet	_____	_____
12 & Under Meet	_____	_____
Non-Home Meet	_____	_____
Heat/Lane Malfunction	_____	_____
Hy-Tek Session	_____	_____

Name of Meet	Date	Class	Hours Console	Hours Times Verification	ET Signature	Trainer?
1. _____	_____	_____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____	_____



FOR TRAINERS ONLY

After 20 hours – Trainee ready for test (Circle one)
Must have 2 consecutive positive recommendations from 2 different trainers

Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____
Date_____	Yes	No	Trainer_____

When completed, send this training record along with your last two evaluation criteria to the Electronic Timing Chair. See OSI WEB Site for name and address of the Electronic Timing Chair. Upon approval of your training record, you will be notified to take the online exam.

Ready to Test: Electronic Timing Official's Chair Signature

_____ Date_____



Behavior Checklist for Electronic Timers

1. Act in the professional role of an official

Positive Behaviors

- Attend Officials Meeting
- Dress Appropriately
- Display credentials
- Arrive promptly for work shift
- Participate in work rotation
- Stay calm under pressure
- Communicate effectively with Referee and other officials
- Stay focused on task
- Exhibit a pleasant demeanor

Negative Behaviors

- Exhibit visible cheerleading
- Disrupts work environment
- Chat that interferes with performance
- Does not accept constructive criticism
- Behave impolitely toward others.

2. Correctly operate timing system equipment

Positive behaviors

- Setup or verify the setup of equipment (events downloaded from computer, system console, pads, buttons, printer, starting console, scoreboard)
- Accurately perform a test start
- Edit an event and heat number
- Observe the start of a race
- Manually start the timing system if necessary
- Set the race parameters (lanes on/off, event, heat, lengths) after the race has started (no console beeps during the start)
- Document the race number and swimmer no-show on ET heat sheet.
- Add or subtract touches and/or finish arm as required
- Observe the finish of the race
- Blank the scoreboard in the event of a heat malfunction
- For the Colorado system, turn off a lane for a missed touch at the finish of a race. Do not do this for the Daktronics system.
- Store, print, reset and advance the heat or event
- Retrieve previously stored race and print the results
- Observe the operation of pads and buttons and communicate any needs to the deck official (non-working pads or buttons)

Negative behaviors

- Contact swimmers during a race (yelling to get off pads, out of water or laps to go)

3. Correctly determine and document the official time using USA Swimming rules

Positive behaviors

- Establish working procedure with Hy-Tek operator
- Check and record no show on timing system console printout (TSCP)
- Check and record any disqualifications on TSCP
- Record names and/or lane changes of swimmers on TSCP as advised by Referee
- Determine and document official times following USA Swimming rules
- If necessary:
 - Investigate any unusual timing situations and determine time
 - Document the steps followed
 - Present results to Referee for approval
- Initial your paperwork
- A certified ET must review and initial all paperwork completed by trainees
- Forward official results to the Hy-Tek operator in a timely and clear manner

Negative behaviors

- Fails to check individual back up times (uses averages instead)
- Incorrectly calculates heat/lane malfunction