



RECORDER

Training Notes

Adopted or Amended	By Whom	Date
Rewritten	Technical Committee	May 2017
Amended	Suellen Hardie/Cherry Smith	April/May 2018

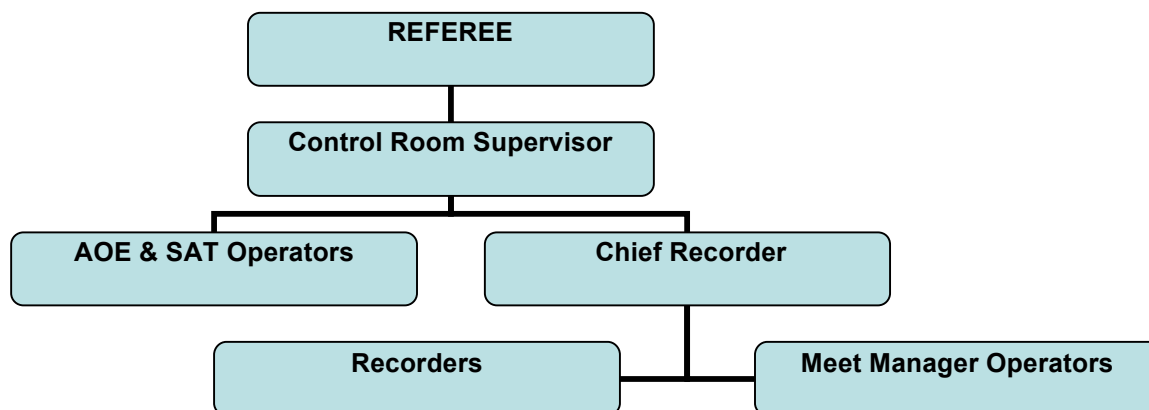
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1. OVERVIEW

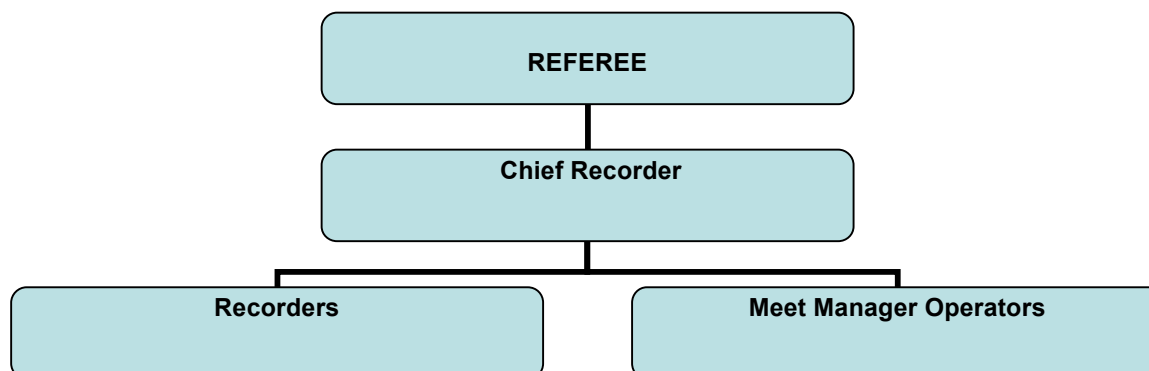
These notes cover the duties and responsibilities of the Recorders for all levels of swimming meets from club to state. The notes also include reference to the duties of the Control Room Supervisor (CRS) being a position closely associated with the role of Recorder at most Championships and Major Events.

The duties and responsibilities of both the CRS and Chief Recorder are detailed in the FINA/SAL Rules of Swimming.

The following organisational chart shows the relationship between the Technical Officials in the Control Room and Recording at a Championship Meet:



As most Area, club and other meets are less complex, these notes are weighted towards this level of recording organisation.



2. GENERAL INFORMATION & PREPARATION

ROLE

The role of Recorder is highly dependent on the type of meet and amount of computerisation.

Many meets make extensive use of computers to schedule swimmers and events, record times, and automate workflow. A few meets are still run entirely manually with entries hand written onto cards, hand held stop watches and paper based recording systems. Most meets have a mixture of manual and automatic processing.

As a Recorder it is your responsibility to understand and apply the processes and rules, regardless of the available technology.

Recorders need to be aware of and understand:

- The Rules and Meet Conditions of the Promoting Body
- What equipment and program is being used to produce programs, race sheets and results
- Whether the meet is being conducted as “timed finals” or “heats & finals” or a combination of both
- The Conditions governing eligibility for finals, medals, awards and the basis of any point score

ARRIVAL

Recorders should arrive at the pool at least one (1) hour prior to the advertised starting time of the meet as they need to be involved with entry and program queries and other duties.

On arrival, Recorders report to the Referee, to be marked present, receive a program, meet other officials and become familiar with the Recording area. The Referee will give any special instructions applicable to the meet.

All equipment, office machines and forms needed by the Recorders are to be provided by the Promoting Body. The Recorder should check with the Promoting Body to ensure that all required equipment is available and in working order.

REQUIREMENTS

Forms and Stationery

- Copies of the program
- Original entries (unless submitted electronically)
- Forms – relay team nomination sheets, Finish Judges’ sheets (if used) and record application forms
- Pens and coloured highlight pens
- Means of fastening and holding papers and forms – e.g. stapler, staples, paper clips, bulldog clips, rubber bands, paperweights
- Means for posting results
- Paper for printing results

Equipment

- Computer and printer for results, point scores, etc, when Meet Manager or a similar program is being used.

The number of Recorders required for a meet will vary according to the type of meet. The number must be sufficient to ensure that the meet is conducted in an efficient manner. One of the Recorders may be appointed as the Chief Recorder.

3. TECHNOLOGY and TIMING SYSTEMS

There are several possible timing systems that you are likely to encounter:

- Automatic Officiating Equipment (AOE) - This primary timing system is started by an electronic signal from the starting unit and stopped by the swimmer activating a touch pad at the end of the pool
 - ARES and Quantum are examples of AOE
- High Speed Video (HSV) - Overhead high speed cameras may be used as a backup timing system for the AOE at major events
- Semi-Automatic Timing (SAT) - This timing system is started by an electronic signal from the starting unit and stopped by a Timekeeper when the swimmer finishes the race
 - The Colorado Dolphin timing system is an example of SAT
- Manual timing - Hand-held stop watches started by a Timekeeper at the starting signal and stopped by the Timekeeper when the swimmer finishes the race

Meet Manager Program - this software is the main system for managing the administration of swimmers during a meet, and recording their results. It produces most meet documentation including programs, race sheets and results.

ELECTRONIC WORKFLOW WITH SCOREBOARD

Prior to the meet all the swimmers entries are combined into a Meet Manager Program file. This is the responsibility of the Promoting Body.

At the venue, this Meet Manager file is loaded into the Meet Manager computer. Race sheets are printed for the Clerks of Course.

The electronic meet file is transferred into the AOE/SAT from Meet Manager.

Information for specific Heats is sent to the scoreboard as the event is swum. The AOE/SAT operators will monitor the timing systems and ensure that the correct results are displayed.

Upon completion of each Heat, the Referee will confirm the scoreboard results to the AOE/SAT operators. If there are any queries or disqualifications these will be communicated.

The Heat results will be transferred into Meet Manager. Once all Heats in an Event are in and any outstanding queries resolved, the results for that Event will be printed.

These printed results are collated with the printed slips from the timing systems and any infraction reports, and passed to the Recorder for checking.

The Recorder will check the results and deal with any issues as required. Once they are satisfied, the results will be distributed to the Announcer and Medal Presentation team.

The Referee may give instructions direct to the Recorder. For example if the Referee authorises a reseed or amalgamation recommended by the Clerk of Course or Recorder.

In this case Meet Manager will need to be updated, and the changes uploaded into the AOE/SAT and then the scoreboard.

Meet Manager can be set to automatically update digital live results' services such as Meet Mobile.

At the end of the meet the electronic results file is backed up and saved from Meet Manager and handed to the meet organisers.

ELECTRONIC WORKFLOW WITHOUT SCOREBOARD

Meets conducted without a scoreboard showing swimmers' names have the same basic workflow, without the event information having to be transferred into the timing system. This reduces some of the pressure for Recorders when an event is amalgamated or reseeded.

Alternatively Meets can be conducted manually, from the seeding of the heats through to compiling the results using manual stopwatches, timecards and Finish Judges' placings.

Recorders need to be able to perform their duties effectively with any combination of computerised technology and manual operation. The underlying principles and logic imbedded in the computer programs, and those used by the Recorders in a manual operation are the same, regardless of whether meets are conducted with computer assistance and using Meet Manager or a basic computer spreadsheet or simply by manual process. Timing can also be fully manual or automatic. The differences are simply how the results are conveyed to the Recording room and how the results are compiled and published. Manual methods require more vigorous checking processes to minimise human error.

4. DUTIES AND RESPONSIBILITIES

A Recorder may be assigned to perform a specific task or a very narrow range of duties in the overall recording process. It is, however, essential that each Recorder has knowledge of the total range of duties involved in the position.

Irrespective of what electronic timing and equipment is used, Recorders may be required to carry out the following tasks:

- Check and record times, results and placings
- Ensure disqualifications advised by the Referee are correctly noted on results
- Ensure all results display the correct point scores if applicable
- Compile a set of results for distribution as directed by the Promoting Body
- Reseed or amalgamate events after withdrawals or as required
- Prepare and issue a list of finalists (or semi-finalists) for subsequent rounds
- Check results for records

Where manual systems are in use to record times and compile results, the checking process and record compilation process will be more extensive and time consuming. In order to minimise human error in the published results two (2) Recorders calling results to each other and checking each other's work is advisable.

5. SEEDING

Seeding of heats is the allocation of the swimmers in an event to individual heats and the allocation of lanes within each heat in accordance with the Rules.

In a single heat event, the fastest swimmer is placed in the centre or right-of-centre lane, regardless of whether in a 50m or 25m pool with 6, 8, 10 or even more, lanes. The swimmer with the next fastest time is placed on their left. The rest are alternated right and left in accordance with their submitted times. Where swimmers have equal entry times, or there is more than 1 swimmer their lanes are automatically allocated by the computer program or by draw if being seeded manually.

At the majority of meets, the program for the meet is preseeded. The seeding into heats is undertaken by computer or manually in accordance with the applicable Rules prior to the meet.

Race sheets (called UK Judges' Sheets in Meet Manager) are produced before the session commences and given to the Clerk of the Course.

NOTE:

- The numbering of lanes in a pool can vary. Lanes should be numbered from right to left standing at the start end and facing the turn end. Lanes could be numbered 1-6, 1-8, 0-9, 1-10, etc. Factors such as location of timing or starting equipment or pool depth would determine the start end.
- Events covering only 1 length of the pool may start at the start end or at the turn end, depending on local circumstances. The swimmers are placed in the same lanes in which they would be seeded if they were both starting and finishing at the starting end.

Seeding Examples shown here according to the standard lane numbering system, in an 8-lane pool, entrants 1 to 42 in numerical time order, fastest to slowest.

1 - Timed Finals format for all events regardless of distance:

Lane No	1	2	3	4	5	6	7	8
<i>1st Heat</i>			42	40	41			
<i>2nd heat</i>	39	37	35	33	34	36	38	
<i>3rd Heat</i>	31	29	27	25	26	28	30	32
<i>4th Heat</i>	23	21	19	17	18	20	22	24
<i>5th Heat</i>	15	13	11	9	10	12	14	16
<i>6th Heat</i>	7	5	3	1	2	4	6	8

TIMED FINALS

The fastest swimmers are placed in the last heat, the next fastest in the second last heat, etc. The results of the event are compiled from this one round only.

NOTE

As shown here, there must be at least 3 swimmers seeded to a heat. However, if swimmers subsequently withdraw from the first heat, the number of swimmers may be less than 3. Swimmers are not moved down from subsequent heats to retain the minimum of 3 in the first heat.

2 - Heats and Semi/Finals format (circle seeding of fastest 3 heats) for events less than 400m:

Lane No	1	2	3	4	5	6	7	8
<i>1st Heat</i>			42	40	41			
<i>2nd heat</i>	39	37	35	33	34	36	38	
<i>3rd Heat</i>	31	29	27	25	26	28	30	32
<i>4th Heat</i>	21	15	9	3	6	12	18	24
<i>5th Heat</i>	20	14	8	2	5	11	17	23
<i>6th Heat</i>	19	13	7	1	4	10	16	22

3 - Heats and Semi/Finals format (circle seeding of fastest 2 heats) for events 400m or greater:

Lane No	1	2	3	4	5	6	7	8
<i>1st Heat</i>			42	40	41			
<i>2nd heat</i>	39	37	35	33	34	36	38	
<i>3rd Heat</i>	31	29	27	25	26	28	30	32
<i>4th Heat</i>	23	21	19	17	18	20	22	24
<i>5th Heat</i>	14	10	6	2	4	8	12	16
<i>6th Heat</i>	13	9	5	1	3	7	11	15

HEATS and FINALS

The fastest swimmers are spread across the last 2 or 3 heats (depending on distance). This is called circle seeding.

The top qualifiers (number depends on lanes available and local rules) are seeded on these heat times and contest the final. The results are compiled from the final round, with subsequent placings determined from the heats (also called preliminaries).

Lane No	1	2	3	4	5	6	7	8
<i>Final</i>	7	5	3	1	2	4	6	8

HEATS, SEMIFINALS and FINALS

As for Heats and Finals except that, following the heats, the top qualifiers sufficient to fill 2 semifinals are seeded with the fastest swimmer in the second semi, the next fastest in the first semi, etc (as per circle seeding of 2 heats).

The top qualifiers, sufficient to fill the final, are seeded on their semifinal times and contest the final. The results are compiled from this final round. Overall placings are determined by results from the final, followed by placings from the semifinals, followed by placings from the heats.

Lane No	1	2	3	4	5	6	7	8
<i>1st Semi</i>	14	10	6	2	4	8	12	16
<i>2nd Semi</i>	13	9	5	1	3	7	11	15

Note: A swimmer who does not contest the next round of an event cannot be awarded a placing above a swimmer who does contest the next round/s, even if their heat time was faster than that swum by another swimmer in the next round/s.

SWIM-OFFS

When swimmers from the same or different heats have equal times for either 8th place in a final or 16th place in a semifinal in an 8 lane pool (10th & 20th places in a 10 lane configured pool), the Recorder informs the Referee, as a swim-off may be required to determine which swimmer will advance to the appropriate final or semifinal.

The result of the swim-off determines who qualifies for the final/semifinal. When using Meet Manager, the swim-off event should be set up and the times are official, able to be used as PBs. The Recorder judges their placings to enable them to be seeded into the next round.

Swim-off times **do not** replace the times swum in the heat or semifinal.

RESERVES

For semifinals and finals the next 2 fastest times after the semifinalists/finalists are determined are named as reserves. These swimmers report to the Clerks of the Course along with the semifinalists/finalists to ensure a complete field should there be a last minute withdrawal due to injury or illness. Such a withdrawal would require an immediate reseed to appropriately seed the reserve/s.

WITHDRAWALS from HEATS

Should sufficient swimmers not report for an event, the Clerk of the Course may take that information to the Referee to suggest that the event be reseeded or heats amalgamated. Only the Referee has that authority and it would be used in order to maintain a level of competition or to reduce the duration of a meet.

- An **amalgamation** is where vacant lanes are filled by swimmers from adjacent heat(s) of the same event. Most usually, the slowest heat is eliminated. All heats retain their original number.
- A **reseed** is where the whole event is reseeded and may result in many changes to the original heat and lane allocation. All heats are renumbered.

The Recorder will supervise the amalgamation or reseed procedure and provide the Clerk of the Course with revised race sheets for the affected heats (amalgamation) or the entire event (reseed).

The Referee, Announcer, Computer Operators, Check Starter, Starter and AOE Supervisor/Operator need to be given the revised documentation detailing the number of heats, before the event starts.

WITHDRAWALS from SEMIFINALS/FINALS

From the completion of an event, swimmers have a designated period of time (usually 30 minutes) in which to notify their withdrawal from the next round of competition. Clerks of the Course take the signed withdrawal forms, indicating the time received and notify the Recorder promptly.

At the end of that period, the Recorder produces the seeded final / semifinal, complete with 2 reserves for publication. This can be via Meet Mobile or posted, printed lists.

NON-SEEDED MEETS

At some meets, the program is listed in entry time (psych sheet) order, with starting positions allocated after marshalling and subsequent removal of withdrawals.

Regardless of whether a meet is preseeded or seeded on the day, the process is the same.

HANDICAPPED EVENTS

Procedures for set-up and recording handicap events are incorporated in the Promoting Body’s Technical Resource documents.

6. RECORDING TIMES

USING AOE / SAT

The official times will be recorded on the AOE printouts. Where there has been an electronic timing failure, the time from SAT or digital watches may be inserted by the Recorder with the Referee's approval.

The CRS or AOE Operator compares the AOE and SAT results for unacceptable variations (SAT times should be within 0.30 seconds slower or faster than an AOE time). Unacceptable variations may indicate equipment malfunction and are to be brought to the attention of the Referee for their determination of the result. This determination should be noted and signed by the Referee.

USING MANUAL TIMING – 3 timekeepers per lane

The 3 times will be written on time slips or lane sheets produced from Meet Manager. These are collected after each heat and handed to the Recorder. The Recorders will determine the official time and record this time.

- The official lane time is the middle time of three watches with three different times recorded
- or the time of two, or three, watches that record the same time

With three Timekeepers per lane Finish Judges are **NOT** required.

USING MANUAL TIMING – fewer than 3 timekeepers per lane

Where the meet is run entirely on manual times, but there are fewer than three Timekeepers per lane, Finish Judges will be used.

The time slips and the Finish Judges' Result Slip are collected and handed to the Recorder. The Recorders will then compare the Finish Judges' placings with the official times and if there are any discrepancies make any necessary adjustments.

When the Finish Judges' placings and the placings based on times do not agree, the times are adjusted, by the Recorders, to agree with the placings approved by the Referee. These adjusted times are the official times.

- *All* the individual watch times on all the lanes involved are averaged and rounded up to the nearest one hundredth of a second. The calculated time is credited to *all* the swimmers involved in the adjustment.
- The Finish Judges' placings for the heat remain unchanged even though official times on lanes may have the same average time for each swimmer.

7. MEDAL ALLOCATIONS

Equal Official Times

When there are equal official times and placings, ALL swimmers who have the same official time to 1/100th of a second are awarded the same placing.

Equal medals are awarded to all swimmers with equal placings and the next place in order is not recorded for awards.

Example 1		
1 st Place		Gold Medal
2 nd Place	Two equal	Two Silver Medals
3 rd Place	No 3 rd placing awarded	

Example 2		
1 st Place	Two equal	Two Gold Medal
2 nd Place		No Silver Medal awarded
3 rd Place	Two equal	Two Bronze Medals

Explanation 1 – the next placed swimmer was the fourth finisher

Explanation 2 – the bronze medallists were the 3rd and 4th finishers

Visitor status

Where Visitor medals are being awarded, the first three (3) placegetters and the first three (3) Local swimmers, if they are not among the first three (3) placegetters, receive medals. A visitor who is *not* placed first, second or third will *not* receive a medal.

Example 1 - Visitors have fastest time and 3rd fastest time		
1 st Place	Visitor	Gold (Visitor Medal)
2 nd Place	1 st Place Local	Gold (Local Medal)
3 rd Place	Visitor	Bronze (Visitor Medal)
4 th Place	2 nd Place Local	Silver (Local Medal)
5 th Place	3 rd Place local	Bronze (Local Medal)

Example 2 - Visitor has equal time with local winner and a visitor is third fastest		
1 st Place	Local	Gold (Local Medal)
Equal 1 st Place	Visitor	Gold (Visitor Medal)
2 nd Place	No second placing awarded	
3 rd Place	Visitor	Bronze (Visitor Medal)
4 th Place	2 nd Place local	Silver (Local Medal)
5 th Place	3 rd Place Local	Bronze (Local Medal)

Example 3 - Visitors record third and fourth fastest times		
1 st Place	Local	Gold (Local Medal)
Equal 1 st Place	Local	Gold (Local Medal)
2 nd Place	No second placing awarded	
3 rd Place	Visitor	Bronze (Visitor Medal)
4 th Place	Visitor	No Medal awarded
5 th Place	3 rd Place Local	Bronze (Local Medal)

Explanation – the 4th placed swimmer (visitor) did not place in the first 3, while the 5th placed swimmer (local) was the 3rd placed local.

8. RECORDS

Electronic Timing for Records

Subject to prerequisite conditions, an official AOE time is valid for all records including World, Commonwealth, Australian, etc. If the AOE fails on a lane, an OFFICIAL SAT time can be recognised for these records provided the equipment has been operated by three (3) Timekeepers on the particular lane and three (3) times have been recorded in the system, and on the printout of the result.

Each Promoting Body will have specific conditions for times to be eligible for a record.

- Results should be checked as to records.
- This includes verification of FINA swimsuit approval number for relevant records.
- Ensure paperwork is accurately completed and signed by all relevant persons for the Referee to review and sign.
- Ensure that the information is passed to the Records Officer or designated person.