

Time Keeping



Module 1

WESTERN PROVINCE AQUATICS





Welcome to the world of swimming In this arena parents can serve their child by becoming a Technical Official. You may ask "**HOW DO I ACHIEVE THAT?**"

Start by getting involved with the club they would advise you attend the following workshops

HOW DO I GET STARTED?

Entrance level a Timekeeping course thereafter Clerk of course "**Competitor steward**"

Judging of technique rule application OR Starters and lastly Referee.

Every portfolio mentioned has its own course module , exam and progression stages .

TIMEKEEPING : Volunteer at 60% of annual gala before upgrade

TRAINING: Attend a Timekeeping course. A WRITTEN THEORY Exam WITH A MINIMUM OF **80%**.

Compulsory 5 galas as a probation Timekeeper probation slips to be return to CTMA

Volunteer as a Timekeeper consecutively for minimum of a one year period before to the next stage.

Judge : Volunteer at 60% of annual gala before upgrade

As above attend the course complete exam (80%) 10 probation galas and spend two years as a Judge
Before an invitation to attend a Starter course.

Starter : : Volunteer at a minimum of 60% of annual gala for a period exceeding two years Before an invite will be extended for upgrade

As above Training – Exams – 15 Sessions as a probationary Starter – Qualify as Starter.

Referee : Volunteer at minimum of 60% of year gala

This is the Ultimate Position. Starters may be invited to attend a course these individuals are expected to complete a theory exam(80%) be available for 15 gala's probation during which the individual Character , Management Ability, Personal Performance ,Communication skills ,Integrity and Ethics evaluation, Communication skills will be under close scrutiny by their peers on the referee's board.

CONFIRMATION as a referee will not be **Automatic, Candidate MAY** be accepted, denied or may be requested to continue as intern with experienced individuals for a longer period.

THE FINA RULE BOOK WILL ALWAYS BE YOUR GUIDE



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TIMEKEEPING

1. INTRODUCTION

The systems used to measure the time swimmers take to cover the distance of an event vary from **manually operated digital stop watches** to more modern **electronically operated automatic timing devices** and or **video cameras.(PART OF GALA EQUIPMENT ONLY)**

Timekeepers perform an indispensable function at any swimming gala. The timing of a swimmer is the one aspect of the proceedings that is recorded for posterity. **No one remembers what the referee or the judges did, but the timekeepers' work is preserved.** Reputations stand or fall by the times recorded, especially for outstanding performances, and they form the basis for a swimmers future tactics and goals.

The same responsibilities and duties apply to Timekeepers at national, inter-provincial, league, age group, school trials, club championships and even club nights. The **accuracy of the times recorded** is as important to the swimmer finishing at the back of the field as it is to the winners and record breakers. These contestants normally **accept that they cannot be winners**, but they **set their own goals** in possibly obtaining a certain position or achieving their personal best times.

In short, timekeepers **perform an important role** and have a **very responsible part to play** at **all** competitions.

Timekeepers can add greatly to the smooth running of a gala if they know what is expected of them also have a good idea of what the other officials at a gala are doing so that their respective duties can be coordinated. Knowing how you fit into the whole gala organization can make timekeeping interesting and can contribute to your enjoyment of a gala.

Swimmers make many sacrifices and work hard for their results. We therefore owe it to them to ensure that accurate times are achieved to cover their performances.

2. ROLE OF A TIMEKEEPER

Timing is the Swimmers measure of performance. The role of the Timekeeper is to accurately determine the time it took a Swimmer to cover the distance of the event from the start signal till the final touch.

Responsibilities of Timekeepers vary significantly depending on the type of timing equipment in use. The **variety of duties** carried out by Timekeepers, depending on the **different systems utilised** are detailed below :

Manual Watch: The Timekeeper operates a hand-held digital stopwatch and is responsible for starting and stopping the watch by utilising the top joint of the index finger.

Button Pusher (BACK UP TIMING)– Operates a button, which is part of the manual-electronic timing system. The Timekeeper is responsible for pushing the button at the finish of the race only.

Head Lane Timekeeper – Takes responsibility for the timekeepers and their duties on an allocated lane, All Time Keepers. times recorded on the lane will contribute to Determining the official time of the swimmer. These timecards will be handed to the Assistant Chief or Chief Timekeeper.

The Head Lane Timekeeper may assign one Timekeeper to take relay splits and intermediate times and also to report if a Swimmer has missed the touch pad, has a light touch or any other irregularity, which may occur on that lane.

Assistant Chief Timekeeper – manages the Timekeepers on one side of the pool by collecting and checking the time cards after each race and attending to queries or problems that may occur on the side of the pool.

Chief Timekeeper – Takes charge of all the stopwatches, Must take an accurate stock count of watches before and after gala. Record faulty watches by writing down the number **etc.**

CH.T will Assigns Timekeepers to lanes, selecting one Timekeeper as the Head Lane Timekeeper. Chief issues and collects watches before and after gala.

Equipment required Pencils.clipboards Timecards etc. Coordinates the management of the timekeeping duties with the Assistant Chief Timekeeper.

At Galas the Organisers and Chief Timekeeper will try to arrange for three Timekeepers per lane in order that records may be recognised, even when an electronic timing device (ETD) is operative.

3. TIMING EQUIPMENT

FINA Rules and Regulations present a number of different types of timing systems and their primary and secondary uses.

An explanation of the approved systems used is present below:

a. MANUAL TIMING

Manual Timing requires the use of hand-held digital or dial stopwatches. Start and stop actions are performed by Timekeepers.

The **accuracy** of the times recorded depends on the **proficiency** of the respective Timekeepers and their **reflex action** at the start and finish of a race.

b. ELECTRONIC TIMING DEVICE

The operation of electronic timing equipment shall be under the control of appointed officials. Times recorded by Automatic Equipment shall be used to determine the **winner and all placings applicable to each lane.**

The ETD times determined shall **have precedence over the watches of Timekeepers.**

The **various electronically operated timing systems** utilised are detailed below :

- i. **VIDEO CAMERA SYSTEM** – is activated by the Starters starting mechanism which achieves a common start to all lanes. It films at a minimum speed of 100 frames per second. **The equipment is utilised mainly for back-up purposes.**

- ii. **SEMI-AUTOMATIC TIMING (SAT)** – is activated by the Starter achieving a common start to all lanes. 'Finishes' are recorded by buttons pushed by Timers when each 'finish touch' of the Swimmers is observed.

The buttons are fitted to the end of a cable that is connected to the electronic timing equipment.

- iii. **AUTOMATIC OFFICIATING EQUIPMENT (AOE)** – is started by the Starters signal (starting mechanism, gun or horn) and is stopped at the finish as each Swimmer touches the pad.

Automatic timing equipment uses pressure-sensitive panels or touchpads installed at the end of each lane.

The pads are connected to an electronic time and place-recording device. The Starters' pistol or electronic horn is also connected to the instrument and, when fired or activated, **starts the timing action**. When the swimmers touch the pad, the timing action stops or in longer races, records the split time at any intermediate distance.

In the event that a breakdown of the automatic equipment occurs or that **it is clearly indicated that there has been a failure of the equipment**, or that a swimmer has failed to activate the Equipment, **recordings of the Timekeepers shall be the official time**.

Measurements Achieved with Automatic Timing Equipment

- a. **Accurate placing and times measured to 1/100 of a second**

NB: When timing to 1/1000 of a second is available, the third digit shall not be recorded or used to determine time or placement. **In the event of equal times, all swimmers who have recorded the same time at 1/100 of a second shall be accorded the same placing.**

- b. **Common and equal start to all lanes** (Loud speakers, positioned at each starting platform and the timing equipment activate simultaneously by the starters)

- c. **Detection of breaks at the start** and with **relay take-offs**.

- d. **Measurements of reflex reaction times at the start and with relay take-offs.**

NB: **Automatic take-off Equipment** – consists of a removable plate, fitted with a spring loaded trip switch with positive movement, and is positioned on the top of each starting platform. When the swimmer mounts the platform the springs and trip switch are depressed and as the swimmer's weight is lifted off the platform the trip switch opens and time is recorded.

The measurements (**reaction time**) that can be measured when this '**Automatic take-off equipment**' is in operation are as follows :

- a) **At the start** – The time elapsed from when the Starter activates the automatic officiating equipment until the swimmer load is lifted off the platform.

NB: If a swimmer leaves the starting platform **faster than 0,1 of a second before the start**, a 'false-start' is declared as this is faster than the considered human reaction time. The timekeeper however remains impartial as this is not his job

- b) **In Relay take-offs** – The time elapsed from when the finishing swimmer touches the pad until the next swimmer's weight is lifted off the platform. **NB:** When this

system is used a take-off time (break) of **minus 0,03 seconds** is allowed and the equipment takes **precedence** over the Stroke Judges and Inspectors of Turns.

Note:

- SAT times are generally 0.10 to 0.20 seconds lower than AOE times
- Manual times are generally 0.10 seconds faster than AOE times.

4. PRIMARY AND BACK-UP TIME SYSTEMS

A Secondary Timing System must be put into place to provide backup times in case the primary system malfunctions. FINA rules require that automatic officiating equipment be backed up by a secondary timing system. This is to ensure that the Swimmer will be provided with a time.

The Primary Timing System is either electronic equipment or manual watches from which the Swimmer's time will be recorded, unless that equipment has malfunctioned. The minimum primary timing system should include three manual watches for each lane.

The following **combinations of equipment and Officials are utilised as Primary and Back-up Timing Systems**. In all instances for primary and back-up timing purposes Finish Judges are used when all lanes are not covered by three Timekeepers.

a. **Automatic officiating Equipment as Primary Systems**

Back-up Systems

- i. Video cameras filming at 100 frames per second minimum
- ii. Semi-automatic timing equipment (SAT)
- iii. Three Timekeepers with digital stopwatches per lane.

b. **Semi-Automatic Timing Equipment as Primary Systems**

Back-up Systems

- i. Three Timekeepers with digital stopwatches per lane.
- ii. Finish Judges if all lanes are not covered by 3 Timekeepers.

c. **Three Timekeepers per lane with reserve Timekeepers for back up purposes**

d. **Finish Judges used when less than three Timekeepers per lane are available.**

5. FUNCTIONS OF A TIMEKEEPER

There are a few simple requirements that a Timekeeper should attend to:

- i. **Arrive 30 minutes** before starting time, **report** to the **Chief Timekeeper** for lane allocation. Sign the duty register.
- ii. Bring a ballpoint pen. Rollerballs and pencils are not ideal on timecards if they happen to get wet.
- iii. **Sign out a stopwatch** and **sign back** in after gala. Ensure it is working.
- iv. Go to your allocated lane about five minutes before the gala starts so that the Chief Timekeeper can see you and knows that you are at your post.

- v. Make absolutely sure the swimmer in your lane moves forward to the start point.
- vi. **Check swimmers** details to ensure he is the designated swimmer in the lane. Children are very playful and lack concentration and may end up in the wrong lane, wrong heat, thus they might miss a race.
- vii. In the event of the above draw immediately to the attention of Chief TK, should they be in wrong place to rectify
- viii. **After 50m events PLEASE** check again Should a wrong swimmer be in your lane notate his on Time card inform Chief.

Information supplied to the Head Lane Timekeeper

Depending on how the administration of the gala has been arranged the **supply of time cards/sheets** and required information about the swimmers can occur in the following different ways.

- a. **A fully completed time card** will be received **from each swimmer** before each race
- b. **When entries have been called for and a program has been pre-printed**, a batch of timecards already filled in for all swimmers, who will be swimming in the lane, will be supplied.
- c. In circumstances similar to b. above, **a copy of the programme and pack a blank time cards** are provided.
- d. At most galas these days, irrespective of the number of Timekeepers per lane and the use of automatic timing equipment, lane time sheets are used which give all relevant details of the events and swimmers for each lane. These time sheets are produced by the Meet Manager software, used by all Provinces and Clubs

The Head Lane Time Timekeeper will take appropriate actions according to the guidelines detailed below and depending on the system used to provide the information.

- i. At the **start of each race, CHECK** your **swimmers name** inform the Chief Timekeeper if a different swimmer reports for a race. The identity of the swimmer must be resolved before the start of the race.
- ii. Check that the swimmer has given you the right card – is it his/her card? Ask for his/her name. Is it the correct card for the next event? Check the program.
- iii. Be ready, on the instruction of the Chief Timekeeper, to amend your cards in line with any changes that have been approved after the cards were prepared.
- iv. **Note the stroke and distance.** This affects the end from which the race starts and you need to know how many lengths are to be swum so that you only stop your watch at the end of a race.
- v. If a pack of blank cards and programme are provided, fill out a card for each swimmer in your lane and blank cards marked 'No swimmer' as necessary. This is a good reason to arrive at a gala with time to spare.
- vi. If a batch of completed cards are received check through your pack of cards to see whether there are any missing.
- vii. Sign all your cards, this avoids delays between races
- viii. Check that your pack is sorted in event and heat order
- ix. If a swimmer did not swim mark card no swimmers **(N/S)** should the swimmer not finish the event mark **(DNF) did not finish**
- x. If your swimmer asks for their time you may tell them, provided you stress that this is an '**unofficial**' time. There are circumstances whereby a swimmer's recorded time could be altered.
- xi. Be careful with the handling of the watch.

- Do not swing it at the end of the cord
- Hand it around your neck with the cord provided,

6. TIMING A SWIMMER

A. THE START (Concentrate – focus on the sound or flash – the greatest imprecisions occurs at the start.)

- Zero your stopwatch
- Position yourself so that you have a clear view of the starter, but try to be well back from the starting blocks.
- Hold your watch so that the hard part of your index finger's first joint is on the start/stop button. (Don't use your thumb)
- Start** your watch when you **see** the **flash of strobe light or the flare / smoke of gun firing** **this start by the sound.**
- Always start your watch, even if you don't have a swimmer in your lane. A watch may fail on another lane and yours may be needed. Don't leave your post if you have no swimmer, you may be needed.

B. DURING THE RACE

- Check that your watch is running. If you have a malfunction report it immediately to the Chief or Assistant Chief Timekeeper for a swop.
- Count off the lengths as they are swum
- During the last length get into position for the finish – with your eyes in the plane of the end wall of the pool – and be careful not to obstruct the place judges view of the numbers on the side of the starting blocks.
- For records to be recognised, three watches are needed and the Chief Timekeeper will either arrange for three lane timekeepers, or for the winning swimmer to be timed by **either** two lane timekeepers plus himself, or by one lane timekeepers, the Assistant Chief Timekeeper and himself. Or he may use timekeepers for lanes without swimmers.
- Do not coach or cheer swimmers during a race. Officials must remain impartial.

C. THE FINISH

- Move to your timing positions when your **swimmer** reaches the **15 metre/false start rope**, BE CAREFUL **NOT TO STAND ON THE TOP OF THE E.T.D PAD.**
- When the swimmer touches the wall, stop the watch. Be very sure about this and do not anticipate a touch.
HINT: Watch the wall and **stop on swimmers touch**– whether the touch was not according to the rule is not your concern. Do not follow approaching swimmer into the wall then stop your watch.
- If an ETD 'back-up' button is being used, this is started by the electronic system but must be stopped by a timekeeper, exactly as the hand-held stopwatch. This time will be recorded on the ETD print-out
- Step back from the pool edge immediately and return to your chair to record the time on your swimmers timecard. If there is more than one timekeeper, write down all the times. Maximum of THREE times. Hold out your card for collection by the Chief or Assistant Chief Timekeeper. (Returning

to your chair 'clears the deck' for the referee, judges and chief timekeepers to get on with their jobs, as well as swimmers getting out of the pool, and other swimmers preparing for their next race.

- v. If your stopwatch does not stop at the end of a race, or you are aware that you did not time the swimmers accurately, advise the Chief or Assistant Chief Timekeeper.
- vi. Do not swing your arm as you press the start/stop button at the start or finish.
- vii. When required to take the time of the first, second or third swimmer ie. When operating a Check Watch, you are required to judge the finish as well as endeavour to take an accurate time. In such instances ensure that you do not stand between two swimmers involved in a close finish.
- viii. Timekeepers should **continually assess their performance** by comparing their times with other Timekeepers on the lane.
Eg; Times too fast - too slow that the start
Times too slow - slow in stopping watch at the finish.

7. RECORDING A TIME

- i. If there is only **one timekeeper**, then the swimmer shall have this time recorded as the **Official time**.
- ii. If there are **two timekeepers**, the times will be averaged and then recorded as the official time for the swimmer. The time should be **rounded up to the next slowest 1/100 second**.
- iii. If there are **three timekeepers**, then the **middle** reading time shall be recorded as the official time. Should **two or three** of the watches **read the same** then this shall be the official time.
- iv. Sometimes there are **more than three people who have timed a swimmer**. Only the three official timekeepers allocated to the lane times will be used the others times will be ignored. If there are less than three watches then the lane timekeepers plus others up to three, as nominated by the Chief Timekeeper, shall be used as all these watches will be of equal status.
- v. Have your time card ready for collection by the Chief or Assistant Chief Timekeeper – don't keep him/her waiting.
- vi. DO NOT ZERO YOUR WATCH until you have given the instruction to do so by the Chief Timekeeper. If however, you do not hear the instruction the referee three sort blast on whistle will be your signal of the start of the next race, you must then zero your watch. After a false start you should follow the same rule.

8. ADJUSTMENTS OF TIMES

When using three Timekeepers per lane the final time and place is determined by the time. The **adjustment of times will only be necessary** when **Finish / Place Judges are utilized**. (when less than three watches are used on some or all lanes). This will be done by the Referee together with the Chief Timekeeper.

It is essential that the sequence of times agrees with the order of finishing as determined by the Referee. Where the times and placing disagree then the **two swimmers whose times and placing differ will both be credited with the average of the times** – but the placing as determined by the Referee will stand.

This is why it is necessary to advise any swimmers who enquire about their times that it is '**unofficial**'

NB:

- a. Only the winner with an official time derived from the three times on the specific lane can claim a record. An adjustment time cannot be recognised.*
- b. The administrative Referee or Recorders are required to draw the attention of the Referee to any discrepancy 0.30 seconds faster or slower than AOE times.*

9. RECORDS

For the record to be recognised, **Automatic Officiating Equipment** or **Three watches accurate to 1/100 of a second**, must record the times. To be accepted for record purposes each timing device must be **started at the starting signal** of the race and **stopped at the instant any part of the swimmers body contacts the finishing wall**.

A Timekeeper may operate only **one watch or push button**, it is necessary to have three Timekeepers on each lane to enable the record to be claimed.

When three watches are initiated at the starting signal and one stops during the race, the times from the other two watches by themselves are not sufficient for record purposes. **Hence the need for Reserve Timekeepers.**

TEAM RELAY

An individual record may be recorded in a team relay .However only the lead swimmer will have this opportunity as he starts with the starting equipment and will have a true start.

Role of Chief and assistant chiefs is therefore crucial.

10. REQUIREMENTS FOR RECOGNISING OF RECORDS

a. World Record. FINA SW 12.6

- Automatic Officiating Equipment
- Semi-Automatic Officiating Equipment, with 3 x Buttons each operated by separate Officials, in the event of AOE Failure

b. South African (Senior and Age Group) and Africa Records

- Automatic Officiating Equipment
- Semi-Automatic Officiating Equipment, with 3 x Buttons each operated by separate Officials, in the event of AOE Failure
- Three digital watches each operated by a separate official

NB: Officials must be registered with an affiliate member.

11. INTERMEDIATE DISTANCES

You could be called upon to time a swimmer at some intermediate distance during a race. For example, a swimmer may ask the referee for an official 100m time during a 200m or 400m race. This may be allowed as the swimmer started with the starting signal for the race and a **record time can be recognised provided the swimmer completes the race**. This could also apply to the first/lead swimmer of a team relay event.

Should you observe a swimmer breaking a swimming rule during a race. As a timekeeper you are to take **no action**, .

NO SMOKING IS ALLOWED ON POOL DECK (FINA RULE:GR 9)

12. TIMEKEEPERS : PROFICIENCY LEVEL REQUIREMENTS

Level I

- a. To be at least 16 year of age
- b. Completed a 65 minute course on Timekeeping and obtained 80% pass for the Course Exam Worksheet.
- c. Verbal Assessment and advice by an Experienced Timekeeper (Minimum Level II)

Level II

- a. Qualified Level I Timekeeper with experience of 5 galas.
- b. Practical evaluation on pool deck by at least two experienced Timekeepers (Level II or higher) over two separate galas.
- c. Verbal Assessment by an experienced Timekeeper (Level II Minimum)

Level III

- a. Qualified Level II Timekeeper with experience at Ten Level II Galas
- b. Verbal assessment and practical evaluation on pool deck by Chief or Assistant Chief Timekeeper.

Level IV

- d. Qualified Level III Timekeeper with experience of at least two official International Galas.
- e. Practical evaluation on pool deck by at least two experienced Timekeepers (Level II or higher) over two separate galas.

13. CHIEF AND ASSISTANT CHIEF TIMEKEEPERS

The Chief and Assistant Chief Timekeeper's duties are;

1. BEFORE THE GALA :

- 1) Ensure that the stopwatches to be used are in good working duty.
- 2) See that the timekeepers sign the duty register against the lane allocated to them. It is preferable to have an assistant Chief Timekeeper and in the case of major galas, two assistant chief timekeepers to streamline and speed up the gala.
- 3) Ensure that the timekeepers have pens. In the case of galas where time cards are not pre-prepared, ensure that each head lane timekeeper makes out a card for each race, irrespective of whether or not they have a swimmer. (Head lane timekeepers are the person who will write the times of each watch on the timecard.)
- 4) Arrive **45 Minutes** before the start of the gala to attend to the above duties.
- 5) Remind Time keepers :
 - i. To start their watches for every race, even when they have an empty lane
 - ii. To report immediately if their watch fails to start, malfunctions during a race, or fails to stop at the end of a race.
 - iii. Not to zero their watches before they are told to do so, or on the referee's whistle.

- 6) The Chief Timekeeper should carry two spare stopwatches and spare pens.
- 7) The Chief and Assistant Chief Timekeepers take up their positions on each side of the pool at the finishing end. All timekeepers must be in position at their lanes.

2. DURING THE GALA :

- 1) Instruct the timekeepers when to zero their watches and signal to the Referee when all Timekeepers are ready for the start of each race.
- 2) Start your own watch when the start signal is given.
- 3) Check that all the timekeeper's watches are running after the start of the race.
- 4) Appoint a reserve timekeeper if any watches malfunction, or gives one of your spare "running" watches to the timekeeper concerned – to be returned after the race.
- 5) Collect the time cards and check that the correct "official" times have been recorded. Arrange the cards in finishing order. (fastest to slowest).
- 6) Check times and placing with the referee and then deliver to cards to the recorders. (A runner can be very useful here)

If there are large differences (in excess of 0.3 of a second) between the times recorded by the 3 lane timekeepers for the winner and the times of your own and the assistant Chief Timekeepers watches, you should report this to the referee, who may decide upon good reason to substitute the times.

When a properly functioning E.T.D is present, it takes preference over Semi-Automatic and Manual Entry times. Semi-Automatic equipment in turn takes preference over Manual Times.

The E.T.D times are read only to 100th of a second e.g. Two swimmers have times 1.26.682 and 1.14.318 their official times are 1.26.68 and 1.14.31. The 1000ths digit is ignored (and never ever used). If no Automatic Officiating Equipment is available and three digital watches are utilised per lane, the final times and placing are determined by the times,

Finishing Judges are required to Judge the finishing order when less than three timekeepers are utilised per lane. In such instances the Referee shall determine placing where necessary.