
Timekeeping Practice

Introduction

Accurate timekeeping is the very essence of our sport, and conscientious, experienced, and dedicated timekeepers are indispensable to the successful promotion of a time trial. To be read in conjunction with CTT Regulations 40, 41, and 42.

Adoption

1. For any person to become an **assistant** timekeeper in an open, semi-open or association event, he/she must first be adopted by a District Committee. The Committee will wish to have some evidence of:
 - a. Satisfactory experience in timing club events.
 - b. Other satisfactory experience (e.g., clerking) which will, together with the individual's own ability, assure the Committee that the applicant is satisfactory.
 - c. The possession or availability of a suitably certified watch or timer.

Note: Unless otherwise mentioned, references to a 'Watch' in the following guide shall also refer to a 'Timer'.

2. For any person to be adopted as a **principal** timekeeper in open, semi-open or association events, he/she must have **at least** one year's experience as an assistant timekeeper and have assisted a principal timekeeper at the finish of an event.

A timekeeper should have a sufficient knowledge of the Regulations that deal specifically with this function. When an electronic timer is being used it should be ensured that the batteries are replaced at regular intervals.

Care should be taken to avoid keeping any watch in an environment where a strong magnetic field may be encountered (e.g., near a radio loudspeaker).

Duties of a Timekeeper

PRINCIPAL TIMEKEEPER

- a. He/she is responsible for ensuring that his/her watch is correctly certified.
- b. At some suitable time prior to the start of any event at which he/she is to officiate, he/she shall set his/her watch to Correct Time. This may be done by using the BBC time signal, the British Telecom, or the Accurist Timeline as a basis.
- c. Preferably before the start of an event he/she shall synchronise watches with the assistant timekeeper (see below). Note that analogue watches (chronographs) and some timers can only be synchronised on the full or half hour, so it is most convenient to arrange to do this half an hour before the due time to start the event.
- d. Exceptionally to (c) in the case of a 12- or 24-hour events the process of synchronisation may take place during the course of the event but before the first riders have reached the finishing circuit.

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- e. Whenever possible he/she shall start off the first batch of riders, noting late starters and their penalties, until such time as it is essential/necessary/convenient for him/her to take up his/her station at the finish, whereupon he/she shall delegate this duty to his/her assistant. However, should the assistant timekeeper also be a principal timekeeper he/she may start all the riders.
 - f. If it is impracticable for a principal timekeeper to start any of the riders because of the short distance of event and/or difficulty of transport from start to finish, he/she should, if at all possible, be present when the assistant timekeeper starts the first rider before the principal timekeeper changes stations.
 - g. The principal timekeeper is principally responsible for recording the time of arrival at the finish of each rider in an individual time trial or the counting member in the case of a team time trial (nb. under certain circumstances it will be expedient to record the time of individual riders in team time trials even though not all such recorded times will be used in the final event result).
 - h. The principal timekeeper should keep a record of each time taken whether or not an official recorder is appointed and should calculate by subtraction each rider's elapsed time. This record should show the order in which riders finished, the time of day of their finish and their elapsed time for the course and should be kept at least until the end of the season.
 - i. The principal timekeeper should be prepared to furnish evidence of his/her watch certificate if called upon to do so, and in the case of BBAR or Championship events or competition record claims, be prepared to sign the appropriate certificate for these purposes. It is convenient and timesaving if a note of the watch certification is kept with the watch.

ASSISTANT TIMEKEEPER

- a. He/she is responsible for ensuring that his/her watch is correctly certified.
- b. He/she shall be responsible for ensuring that his/her watch is correctly synchronised with the principal timekeeper's watch. In order to do this, he/she should be present before the due time of start of a fixed distance event or at a nominated rendezvous during the course of a fixed time event.
- c. He/she shall be responsible for starting riders when the principal timekeeper's duties prevent him/her from doing so.
- d. He/she shall note the reserve riders, late starters, and their penalties. These, together with non-starters, shall be reported to the principal timekeeper as soon as possible after the last rider has started.
- e. After all riders have started he/she shall check his/her watch with that of the principal timekeeper to confirm that no discrepancy has arisen during the course of the event.
- f. He/she may be involved in recording finishing times of riders under the supervision of a principal timekeeper. In this case the comments relating to the duties of a principal timekeeper are to apply.
- g. He/she may be involved in recording finishing circuit times in a 12- or 24-hour event.
- h. He/she should be prepared to furnish evidence of his/her watch certificate when called upon to do so and in the case of BBAR or Championship events or competition record claims be prepared to sign

the appropriate certificate for these purposes. As for the principal timekeeper, it is most convenient if the appropriate documents are kept with the watch.

Procedure for Fixed Distance Events

Procedure at the start

- a. The principal and assistant timekeepers should meet before the start of a fixed distance event to synchronise watches. The watches (if analogue) should be compared at some convenient time when the assistant's watch should be adjusted so that the time-of-day pointers exactly coincide with those of the principal watch. Then, at a whole or half-hour position, the chronograph section should be actuated to coincide exactly with that of the principal watch. If necessary, the position of the time of day second pointer should be noted relative to the chronograph sweep pointer so that in the unlikely event of the chronograph being accidentally stopped, it can be restarted with some degree of accuracy. Procedure with digital timers is usually much simpler, but even with some of these it is necessary to synchronise on a whole hour time.
- b. At 5 minutes before the first rider is due to start, notice should be given of the imminence of the start of the event.
- c. The timekeeper or a helper should call the number of each rider when there is one minute to that rider's due time of start, whether or not the rider is present.
- d. The identity of each rider should be established.
- e. If the rider has any advertising matter on their clothing which is not explained by reference to the start sheet (e.g., membership of a sponsored club) he/she should be asked if he/she is entitled to wear this clothing. If he/she says 'yes' then he/she should be allowed to start. The District Committee may take proceedings if the answer is false, but the timekeeper should not be expected to remember the full list of sponsored clubs. In club events, the wearing of trade jerseys is allowed.
- f. If a rider is dirty or untidily dressed a timekeeper may refuse to allow the rider to start.
- g. As each rider reports to the start he/she must be told of any change to his/her handicap or of any late start penalty.
- h. The rider being started should be notified when he/she has 30 seconds to go. Then 20 or 15 seconds, 10 seconds, and the last 5 seconds to start time counted down (5, 4, 3, 2, 1 "Go").
- i. As each rider starts a tick or other symbol should be put alongside the rider's name on the start sheet.
- j. The position in the field of reserve riders should be noted and the reserve rider should be told to call out his/her reserve number at the finish.
- k. Once started, a rider shall not be allowed a second start.
- l. If a rider reports ready to start but later than that rider's listed time, then the time of reporting should be noted and the lateness shall be his/her penalty. He/she may then be started at the

discretion of the timekeeper at the next whole minute gap available. He/she should be told to call his/her own number.

m. Late starts and penalties shall be noted by or reported to the principal timekeeper.

n. Reserve rider positions in the field should be noted by or reported to the principal timekeeper.

o. Non-starters shall be noted by or reported to the principal timekeeper.

Procedure at the finish.

a. The timekeeper should insist on the appointment of a recorder or clerk with properly made clerking sheets

and a competent number taker whose duties shall be to keep a record of each rider in order of finishing.

b. The timekeeper shall ensure he/she has a clear view of the riders' approach to the finish. If necessary

he/she shall call upon the event secretary or his/her representative to take action to preserve such view

from being obstructed.

c. A record of the running minute should be kept. This is a system of recording each minute whether or not a

rider finishes during that minute and is a safeguard against the possibility of an incorrect reading being taken, particularly after an appreciable gap between riders. This is especially important in longer distance

events where long gaps between finishers are more common.

d. On the approach to the finishing line of a rider or riders the timekeeper shall advise the recorder as follows:

a. the hour (where necessary), minute and number of riders involved. Then, as each rider crosses the finish line, he/she shall note the precise second. For the purposes of recording (except in Hill Climbs) the time shall be taken to a whole second. Where a rider finishes on a fraction of a second, the next whole second shall be recorded.

b. In Hill Climbs, times shall be recorded to one tenth of a second, rounding up where appropriate.

e. The rider's number is to be noted. When necessary, reference must be made to the official number taker

for confirmation. When a rider finishes whose number cannot be read, his/her finishing time must still be

noted and space reserved for the deduction of the elapsed time which can only be determined after enquiries have been made.

f. When a rider finishes and from his/her number is clearly out of place in the order of finishers, his/her elapsed time should not be determined until a reason for the discrepancy is found (e.g., a late start)

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- g. The timekeeper shall keep a record of all times so obtained and from it deduce the elapsed time for each rider.
- h. At convenient intervals, but always as soon as practicable during the event, the timekeeper should confirm with the recorder the finishing time recorded for each rider.
- i. The timekeeper should confer with his/her assistant, as soon as possible, to compile a list of non-starters, reserve riders (where appropriate) and to make corrections for late starters.

Procedure for Fixed Time Events.

In general, the procedure for a fixed distance event applies equally to a fixed time event with the following exceptions:

- a. Synchronisation should be done at a suitable site near to the finishing circuit before the first rider is expected to enter the circuit.
- b. All assistant timekeepers should assemble together with the principal timekeeper as called upon to do so in the event instruction sheet. As in fixed distance events, striking up of analogue watches (and some digital timers) should be on the whole or half hour position.
- c. Circuit timekeepers must ensure that they know the exact position of their own timing point.
- d. When timing riders on the circuit, instructions to the recorder concerning time of day etc. are as for fixed distance events.
- e. Riders should be timed each time they pass the timing point and the finishing circuit timing form should indicate the number of times such rider has passed.
- f. The finishing circuit timing form should show only the time of day at which each rider passed the timekeeper.
- g. At about the time that the first riders are due to finish, the timekeeper should advise the recorder and/or the helper of the fact. Then as each minute passes, the information as to which riders are to be stopped should be updated.
- h. Only after a full period of 12 or 24 hours (as appropriate) has passed for any individual rider should that rider be stopped. However, if any rider opts to end his/her ride before their full allotted time has elapsed he/she should be allowed to do so. In this case, that fact that the rider has stopped short should be noted on the official form.
- i. The timekeeper is expected to present the form bearing the details either to an official collecting such forms, or to the event secretary for the official calculation, immediately after the event at a prearranged venue.

Procedure in Team Time Trials

In general, the procedure for Team Time Trials is the same as for a normal fixed distance event. However, this type of event contains certain aspects which require special care. Whilst theoretically no more difficulty should be encountered starting riders at time intervals of 2 or 3 minutes instead of the more usual 1 minute, in practice it is found that more attention must be paid to ensure that each team is started on the correct minute. With 2-up TTTs this may not present much of a problem since each team will start on an even number of minutes; riders 1 & 2 start at .02, no's 3 & 4 at .04 and so on.

With a 3-up TTT it is a little more complicated in that the starting times are alternately odd and even; riders 1,2 & 3 will start at .03, riders 4,5,& 6 will start at .06 then 7,8 & 9 at .09 and so on.

However, in a 4-up TTT, unless the event secretary has a special set of numbers (e.g., 3a, 3b,3c,& 3d etc), then the riders' numbers may not be easily equated to their starting times. Nos 1,2,3 & 4 are likely to be started at .03, whilst no's 5,6,7 & 8 may go at .06 and so on! One method of dealing with the problem is to underline each team on the start sheet before the event and circle the group's starting time. The problem almost certainly will be exaggerated when there is one or more non-starting team. The extra-long interval encountered between starters calls for a great deal of concentration if the timekeeper is not to lose sight of the correct time at which to dispatch the next team.

At the finish of a TTT a problem that might arise is when an incomplete team finishes. The timekeeper must be careful to ensure that he/she does not mistake the starting time of a rider who does not finish. For example: in a 3-up TTT, riders numbered 16, 17 & 18 started at 14.18 hours and then during the ride number 18 retires leaving only 16 and 17 to finish. The finish timekeeper must remember that these surviving riders started at 14.18 hours and not 14.17!

Also, the timekeeper must be aware that the counting rider (i.e., the one on whose time the performance rests) is the second to finish in a team of two and the third in a team of three or four. As stated elsewhere, it may sometimes be necessary (e.g., where a team has failed to keep together) for the timekeeper to time in individual riders in order to ensure that he/she will have all the data needed for the event secretary to produce a full result.

Duties of a Recorder.

A. IN A FIXED DISTANCE EVENT

- a. The recorder should ensure that he/she, as a minimum, is equipped with a clipboard, sufficient pens/pencils, a clerking card (for writing the times as the riders finish) and the properly made out clerking sheets. The event secretary must provide the official clerking sheets.
- b. The recorder is to note on the clerking card, on the timekeeper's instruction, the precise finishing time of each finishing rider.
- c. Any errors of recording should be clearly crossed out and the revised entry made.
- d. He/she should, at the earliest opportunity, and independently of the timekeeper, deduce the elapsed time of each rider. Having done so he/she shall then, as soon as possible, compare his/her

findings with those of the timekeeper. In the event of a disagreement, both he/she and the timekeeper shall check their workings until they do agree. When the elapsed time is agreed and as the opportunity arises, he/she shall transfer the finishing time and the elapsed time to the official clerking sheets.

B. IN A FIXED TIME EVENT

In general, the requirements are as for fixed distance events with the following exception:

- a. Only the time of day needs to be noted for each rider as he/she passes the timing point. Elapsed time should not be deduced.
- b. The time of each rider is to be transferred to the special form, which will eventually show the time that each rider has passed the finishing point on each lap of the circuit.
- c. As a rider whose full time has elapsed is stopped at the timing point, the details that will include the number of times he/she has been timed at that point should be noted on the special form.
- d. An estimate of mileage should be made for each rider finishing, taking into account the total distance to the timekeeping point, and subtracting any known loss of mileage due to detour and time over the duration of the event.
- e. The rider should be informed of the estimated distance, which shall be subject to confirmation.

Watch certification process

To be read in conjunction with CTT Regulation 39.

The specifications and tests for electronic timers and watches to be used for the timing of Cycling time Trials events are set out below.

The fee, plus any additional work that is found to be necessary during the test will be subject to the normal charges between the tester and the customer.

Timing reference

Timers and watches shall be tested against a known standard that is traceable to an atomic clock somewhere. The same reference shall be used throughout the test. Acceptable references include:

1. The “pips” on BBC Radio 4 on FM and DAB
2. GPS devices
3. PCs and laptops synchronised to a known reference
4. Mobile phones synchronised to network time

The testing of electronic timers submitted for certification under the Cycling Time Trials scheme

1. The timer must have a permanent identification number to eligible for the test
2. The timer must comply with the requirements of the regulations of Cycling time Trials

That is, it must have:

- i. A quartz crystal oscillator: in this respect the maker’s written specification shall be acceptable
 - ii. Split timing facilities to decimal parts of a second
 - iii. A digital display of a height of not less than 4mm. in the case of multiple displays, at least one display shall meet this requirement
 - iv. An initial battery life of 100 hours when in full display
3. The timer shall be kept in operation for at least 100 hours
 4. The action of stopping, starting and split buttons will be examined, and the actions should be positive
 5. Each digit of the display shall be checked to ensure it functions correctly
 6. The accuracy of the timer shall be checked over four consecutive periods of 24 hours and the error each day shall not exceed five seconds either side of the mean

The testing of watches (time of day chronographs) submitted for certification under the Cycling Time Trials Scheme.

The specification

The watch shall have a movement of not less than 18 ligne, shall possess at least one independent centre seconds hand, and at least 13 jewels in the balance, escapement, and train.

The annual test

The annual test occupies a minimum of eight days, and consists of a series of short tests of the chronograph action followed by determinations of the rate of error of the watch under the conditions listed below.

Order of test

1-day Short tests of the chronograph action in both dial up and pendant up positions.

1 day In the dial up position with the chronograph in action

4 days In the dial up position with the chronograph not in action

1 day In the dial down position and the chronograph not in action

1 day In the pendant up position and the chronograph not in action

Chronograph action

- a) The general functioning of the chronograph mechanism and of the chronograph hand and recording hand (if any) must be satisfactory
- b) It should not be possible to arrest the chronograph hand temporarily or otherwise interfere with its normal motion by manipulation of the push piece
- c) On resetting the chronograph hand, it must return to within one fifth of a second of the zero mark
- d) If the watch is fitted with a split second's hand, the requirements of (b) and (c) must be complied with irrespective of whether or not the hands are split and of the position of the split seconds hand when separated
- e) The principal chronograph hand and the split seconds hand must always be in exact accord whenever the hands are not split
- f) The return of the split seconds hand to the principal hand must be free from sluggish or spasmodic action.

The daily rate of error

The daily rate of error in dial up, dial down and pendant up positions shall not exceed 15 seconds per day either side of mean.

Test Certificates

Numbered official forms are issued free of charge to all Approved Timer and Watch Testers, for the certification of electronic timers and watches. Further supplies can be obtained on application to the National Secretary (Competitions and Development).

The forms bear the following wording:

“This is to certify that the electronic timer/watch described above has been tested and conforms in all respects to the requirements of the regulations of Cycling Time Trials (formerly the Road Time Trials Council)”

Date of Issue	Reason of Revision	Author
December 2001	New edition	P A Heaton (RTTC National Secretary)
June 2018	Revised format	Nick Sharpe (CTT National Secretary)
September 2022	Revised to reflect current CTT Articles, Rules, and Regulations	David Barry (CTT Board Director)