



AUSCYCLING

***TRIAL RECORDING &
ENVIRONMENTAL
STANDARDISATION PROTOCOL***

Version: January 2024



TRIAL RECORDING & ENVIRONMENTAL STANDARDISATION PROTOCOL

1. CONDITIONS FOR RECORDING A VALID TIME FOR SELECTION PURPOSES:

1.1 All competition or timed trials conducted for the purpose of achieving specific performance selection criteria are to be conducted only within Union Cycliste International (UCI) and AusCycling (AC) sanctioned competitions, or in AC conducted trials - and be in controlled conditions that must satisfy the following:

1.1.1 Be witnessed by at least one of the following:

- a National Discipline Coach, National Head Coach, or Executive General Manager - Performance (EGM-P);
- a State Institute/Academy (SIS/SAS) Coach;
- a member of a National Selection Panel; or
- a suitably experienced person appointed by the National Discipline Coach, National Head Coach, EGM-P where one of the above is not available.

1.1.2 Be conducted on an empty track (no other athletes) with marker sponges placed where dictated by relevant regulations or during a sanctioned competition. This includes team sprint races for the timing of a standing start 250m time trial. - marker sponges not required as per current UCI regulations (Matt C)

1.1.3 A performance may only be recorded on a UCI homologated velodrome at below 500m altitude.

- 1.1.4 For any trial in or out of competition, the athlete will be required to use UCI compliant clothing, helmet, and bicycle for that specific event.
- 1.1.5 Proper starting gates are to be used for trials involving a standing start (i.e. 250m, 500m and 1000m trials). A handheld start with an electronic timing device activated by movement of the front wheel will only be permitted for timing of an individual and/or team pursuit trial.
- 1.1.6 A nationally accredited commissaire should be in attendance.
- 1.1.7 For all standing trials/races, the first lap must be recorded, in addition to the total time for the performance.
- 1.1.8 Electronic timing, including but not limited to:
 - Active RFID (Radio Frequency Identification) (e.g. Tissot or MyLaps)
 - Contact strips (e.g. Tissot, Omega),
 - Light Gatesis to be used for all trials.
- 1.1.9 If electronic timing is unavailable, times may be considered at the discretion of the EGM-P or National Discipline Coach/Technical Director if the performance is recorded in accordance with clause 1.2.
- 1.2 All trials should be recorded on video according to the following minimum standards:
 - 1.2.1 A digital video camera with the following minimum settings shall be used to capture each trial. The specifications for video format are:
 - **Resolution** of at least 1280x720 (min. 921,600 pixels);
 - **Frame Rate** of at least 50 frames per second **progressive scan**;
 - **Shutter Speed** of at least 1/250th of a second.
 - 1.2.2 In any standing start event the video must include the red and green lights on top of the semaphore board during the countdown.
 - 1.2.3 The athlete must be in full view for the entire duration of the trial for the video to be considered valid.
- 1.3 Environmental conditions information must be recorded at the time of the trial in accordance with the following:
 - 1.3.1 The environmental conditions must be recorded at track side by a National Discipline Coach, SIS/SAS Coach, SIS/SAS Sports Scientist, or National Selector, within 15 minutes prior or post performance, using an Environmental Conditions Measurement Instrument calibrated by a NATA (National Association of Testing Authorities) accredited calibration lab. The stated accuracy of the instrument must meet or exceed the accuracy values outlined in 1.3.5. The instrument must be turned on and left

running for at least 60 minutes prior the first trial. The parameters that should be recorded are:

- **Temperature** in degrees Celsius (°C);
- **Atmospheric Pressure**, in Hectopascals (hPa);
- **Relative Humidity** in percent (%).

1.3.2 For all events the environmental conditions will be applied against the times recorded through the latest version of AC's Environmental Conditions Correction Tool (software).

1.3.3 The baseline (zero) standards set for environmental conditions to calculate air density is:

- **Temperature:** 26°C
- **Atmospheric Pressure:** 1013 hPa
- **Relative Humidity:** 50%

1.3.4 The resultant **standard** air density is:

- 1.172298 kg/m³

1.3.5 Standardised times will be calculated with an error margin based on the standard error of a Kestrel 5200 Weather Meter as stated by the manufacturer:

- **Temperature:** +/- 0.5°C
- **Atmospheric Pressure:** +/- 1.5 hPa
- **Relative Humidity:** +/- 2%
- **Coverage Factor (k):** 2

1.3.6 If two times recorded at different events fall within this error margin, they will be considered the same time for selection purposes. This will not apply if the times are recorded at the same event, where errors will be considered identical.

1.4 In cases where an incorrect environmental parameter is recorded, e.g. Barometric Pressure instead of Atmospheric Pressure (Station Pressure), the correct value may be approximated using provided values, map data, and local weather station data; according to AC's conditions approximation process.

1.5 If two performances need to be compared, where electronic timing is not available for one of the performances, the result recorded on electronic timing should be rounded down to the nearest 100th of a second.