



Triathlon Association of Singapore

EVENT ORGANISER'S

MANUAL

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Reference

This document references information from the following ITU publications

- ITU Competition Rules 2017
- ITU Event Organizer Manual 2015

INTRODUCTION

Purpose

The Event Organizers' Manual (EOM) contains all of the basic elements to be applied to all the Triathlon and multi-sports events held in Singapore, under the control of the Triathlon Association of Singapore (TAS).

Any International Triathlon Union (ITU) or Asian Triathlon Confederation (ASTC) sanctioned event should refer to the ITU EOM.

The assigned Technical Delegate (TD) of your event will be your main point of reference and will be able to provide clarifications and guidance on each and every section of the EOM. The TD is authorised to adapt the specifications outlined in this document to the local event's conditions.

Definitions

The definitions of the terms and the acronyms that are used in this document can be found in the Appendix Section A.

Intents of TAS

All the TAS approved events should be conducted under the following principles:

- safe and fair;
- spectator and media friendly;
- sponsors' satisfaction;
- profitability;

TAS Officials

The following Technical Officials (TOs) will be appointed for all local events.

Technical Delegate (TD) ensures that the requirements of the EOM are implemented, as well as the implementation of the ITU Rules governing the competition including the anti-doping elements of the ITU event.

Assistant Technical Delegate (ATD) assists the TD in areas assigned to him/ her. The ATD is part of the ITU technical education program.

Team Mentor (TM) oversees the event and advises the TD and ATD. *This is an optional role, appointed by the Technical Committee at its own cost.*

Chief Transition ensures the smooth running of the transition area, including cycle mount / dismount, where applicable.

Assistant Transition assists the Chief Transition in areas assigned to him / her.

Chief Swim ensures the smooth running and regulations for the swim leg, including the start.

Assistant Swim assists the Chief Swim in areas assigned to him / her.

Chief Cycle ensures the smooth running and regulations for the cycle leg, including the start, if applicable.

Assistant Cycle assists the Chief Cycle in areas assigned to him / her.

Chief Run ensures the smooth running and regulations for the run leg, including the start, if applicable.

Assistant Run assists the Chief Run in areas assigned to him / her.

Other officials may be required, at the request of the TAS Technical Committee and the TD, depending on the event (e.g. National Championship). This may include **Race Referee, Chief Penalty Box, Chief Finish / Timing, Assistant Finish / Timing** and others.

The minimum number of TOs required for local multisport events are as follows:

Triathlon – 10 TOs, including TD and ATD

Aquathlon – 8 TOs, including TD and ATD

Duathlon – 8 TOs, including TD and ATD

The EO is expected to pay TAS for these officials, based on an agreed rate.

The EO may provide meals, t-shirts or other items for the TOs.

The total number of Technical Officials will be agreed between the EO and TD, depending on the size and location of the event. The numbers shown above are a minimum requirement. TAS may provide additional TOs, including a Technical Mentor, at its own cost to ensure safe running of an event.

ADMINISTRATION

Event Organiser Organization Chart

The EO should provide a copy of their Org Chart to the TD at least one (1) month before the event

There could also be a list of contacts with job description, mobile number and email.

Official Language

The official language for all communication is English.

Insurance

All athletes competing must be insured for personal accident and third-party injury.

If athletes do not have their own coverage it must be provided on a per event basis, by contract with insurance providers approved by TAS.

Database

The EO must provide a database (or hardcopy list) of all athletes taking part in the event, by wave.

It is the responsibility of the EO, together with the TD to ensure that all starting athletes are tracked to completion of the event.

Permits and Approvals

It is the responsibility of the EO to obtain written approval for course and location, including swim, bicycle, run, transition and all jurisdictions; (municipality, police, engineering department, etc.).

Any temporary structures (pontoon, grandstands, stages, gantries, etc.) must be approved in writing by a qualified structural engineer.

A track management plan needs to be submitted for review of TAS. TAS shall offer comment and feedback, but shall not reject any plan unless on grounds of safety.

Event Schedule

The EO shall publish a detailed event schedule at least two (2) weeks before the event.

The EO shall ensure, where possible that competitors are divided into waves, by age and experience to ensure a good race experience for all.

Site Visits

Site visits by the TD and TAS team can be arranged prior to the event.

The TD should be included in all communications on event planning to ensure a smooth process.

The TD and ATD will visit the site one (1) day ahead of the event, or at a time mutually agreed with the EO.

Events Debriefing

A debriefing of the Technical Officials will be held after the end of the event.

The EO and medical representative should be present at the debriefing.

A report will be sent to the EO by the TD after the event and a meeting can be arranged, if necessary, to discuss comments and observations.

FIELD OF PLAY (FOP) OPERATIONS

General

This section describes the course management duties of the Event Organiser.

- Start area;
- Swim course;
- Transition area;
- Bike course;
- Bike course aid station (where applicable);
- Bike course penalty box (where applicable);
- Wheel station (where applicable);
- Lap counting;
- Run course;
- Run course aid station;
- Run course penalty box (where applicable);
- Finish area; and
- Relay zone.

These phases will be described as:

- Layout;

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- Personnel;
 - Equipment; and
 - Procedures & Operational Plans.

Start Area

START AREA LAYOUT

The start area will be defined by hard crowd control low fencing providing the athletes with a buffer zone from spectators.

Lining-up age group athletes on time is critical to avoid delays to the start times.

Ideally some toilets should be provided near the start area.

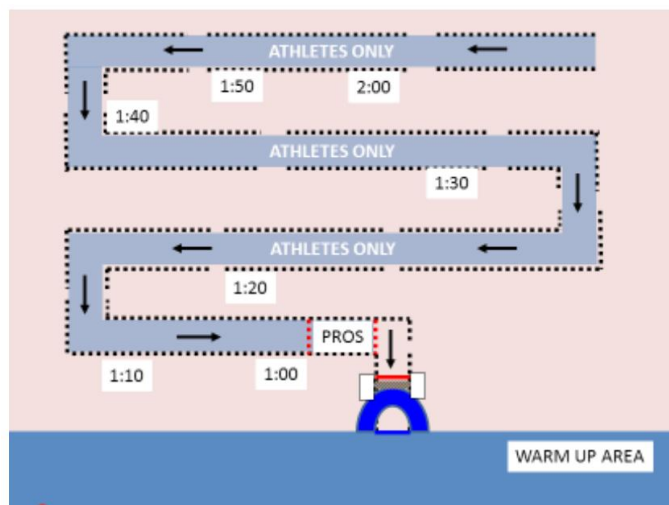
A timing mat should be placed just before the entrance to the start area. All athletes will have to cross the timing mat before starting the race.

Rolling Starts

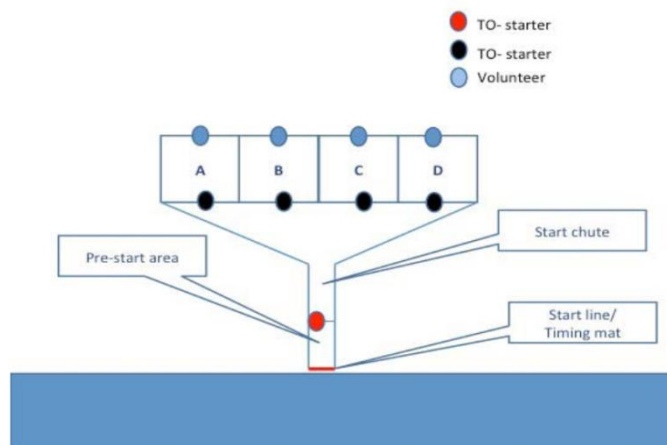
Start area for events with rolling starts.

- For events with a rolling start system, the EO and the TOs must follow the start procedures as described in the ITU Competition Rules. The TD should be the one to determine the line-up process of the athletes. This can be:
- According to the expected swim start times either for mixed genders (non-drafting events) or separate genders (draft legal events);

- Per AG categories (with mixed genders for non-drafting events or with separate genders for draft legal events).
- The layout of the area should either be:
 - a long corridor with several entrances for the different waves / start times; or



- several boxes / corrals connected to a start corridor;



- Adequate signage should be in place, directing the athletes to the start area.

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- The start chute should be 3m wide and long enough to accommodate the number of athletes starting the race.
 - A pre-start area should be located from the end of the start chute to the start line. The pre-start area should be 5mx15m.
 - A timing mat should be placed just before the swim start area, at the start line. All athletes will have to cross the timing mat before starting the swim.

START AREA PERSONNEL

Staff and Volunteers

A team should be dedicated to assist the TOs with the managing athletes at the pre-start area and keeping the area clean.

Technical officials - the number of technical officials assigned to the pre-start / start area will be determined by the TD based on the number of athletes in the competition;

START AREA EQUIPMENT

START AREA PROCEDURES AND OPERATIONAL PLANS

For AG middle/long distance events, the preferable distribution is to start with the men from youngest to oldest followed by the women in the same order;

Where there is an Elite group of men and / or women the elite groups should start first;

For AG draft-legal competitions, the waves should be planned by grouping the genders together and starting the different age groupers from youngest to oldest. A start time difference between the waves and the genders will be established to minimise the waves mixing; and

The final waves schedule should be provided to the athletes with additional information including the size of the waves, race numbers, check in / out times.

a) To ensure the safety of the athletes, there is a limit on the number of athletes starting at the same time. The size of each wave is defined in the ***ITU Competition Rules***.

b) The time difference between the waves in an AG race is defined by the TD. The following parameters should be taken into consideration:

- Tide tables in the area;
- Length and laps of bike and run course;
- Road closure agreement with the police;
- TV and audience promotion;
- Number of athletes;

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- Venue orientation;
 - Sunset and sunrise times;

Possible overlapping between men and women, young and old age groups;

The final goal is to minimise overlapping on the bike course and to achieve an athletes' distribution on the bike course with no less than 25m per athlete on an AG triathlon draft illegal sprint / standard distance event. A preferable distribution is to alter the genders per AG and to start the AG from youngest to oldest in Standard distance, then same sequence in Sprint, followed by Dash, Youth and Junior AG.

Swim Course

SWIM COURSE LAYOUT

a) Number and length of laps:

- Elite / U23 – 1500m – 2 laps;
- Junior/age group sprint distance / paratriathlon – 750m – 1 lap;
- Age group standard distance– 1500m – 2 laps;
- Middle distance – 1900m to 3000m – 3-4 laps;
- Long Distance – 1000m to 4000m – 2-8 lap;
- Team relay – 250m to 300m – 1lap.

b) The swim will be in a counter clockwise direction, if the TD does not suggest differently;

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- c) The turns should be curved and with the angle of the turn never less than 90°;
 - d) For standard and long-distance events, the first turn buoy will be a minimum of 200 m from the start;
 - e) The swim course minimum depth should be 1.5m;
 - f) The use of a warm-up area must not interfere with the competition in progress;
 - g) Medical facilities will be placed adjacent to the swim course;
 - h) An aid station will be placed on the beach at the end of the swim loop and close to the swim exit for the age group athletes in any distance.

SWIM COURSE PERSONNEL

Staff and Volunteers

All the positions of the swim course personnel should be described in the Marine Operations Plan to be provided by the EO.

It is recommended that:

- The safety boat driver has experience on boat handling, water safety, communication and rescuing other water users;
- To have certified lifeguards assigned to open water safety. We should have a ratio of 1 lifeguard per 50 athletes in the water
- The divers to have a rescue diver qualification.

Technical Officials

The number of technical officials assigned to the swim course will be determined by the TD based on the number of athletes in the competition and the swim course layout.

SWIM COURSE EQUIPMENT

Buoys

These are guidelines only.

- The buoys should have the following characteristics:
 - Turn buoys are yellow, 2.5m long x 1m diameter
 - Sight buoys are red, 1.2m long x 0.7m diameter
- Buoys should be made of fabric air-tight pvc 850-1100 denier, sewing high frequency welding system, multiple connections stainless steel for the connections of the buoys, valve irrevocably and should be removable.
- Sight Buoys: The number and placement of sight buoys will vary, but will never be placed less than 100m apart.
- Use of wire is forbidden. Use of carabiners is recommended;

It is common practise in AG events to use buoyed lane markers, which may also act as recovery points. However, this is not mandatory.

SWIM COURSE PROCEDURES AND OPERATIONAL PLANS

a) Water quality

The EO is advised to conduct tests on water quality one week before the event and provide the results to the TD. The water quality tolerance limits are listed in the ITU Competition Rules.

b) Speed of current:

According to the ITU Competition Rules the TD has the authority to modify the distance of the swim segment or even cancel the swim depending on the speed of the current.

The goal is for the athletes to swim for the same amount of time with or without a current by extending or reducing the distance as required.

The swim segment must to be cancelled if:

- Athletes would be swimming against a current stronger than 0.15 m/s.
- Athletes would be swimming with a current stronger than 1 m/s.

The current speed can be measured in a defined distance of 10m at the swim segment, by throwing a piece of wood into the water and measuring the time it needs to cover 10m.

c) Course measurement

A laser transit or GPS will be used to measure the swim course, which must be the exact needed distance. This certified measurement must be provided to the TD for approval.

d) Warm-up

A warm-up area should be provided, next to the swim course and should be clearly indicated to competitors. Marshals should ensure that swimmers performing their warm-up do not encroach on the course.

e) Monitoring athletes' behaviour

It's extremely important to closely monitor the athletes' behaviour during the swim segment, to ensure safety for all. The EO and the TD should brief the technical officials and swim course personnel on performing their duties properly and guarantee the athletes' safety.

f) Marine Operational Plan

The EO should prepare and submit to the TD for approval, a marine operation plan that should include the following:

- Detailed description of the swim courses along with the GPS coordinates of the buoys set up;
- Complete list of the marine / rescue staff, along with the equipment (boats, kayaks, boards etc.);
- Communication Process between marine staff, medical team, EO and TD;

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- Schedule of activities along with the check in and check out timelines of the involved personnel;
 - Normal operating procedures with a clear description of the movement of each marine personnel (before, during and after the event);
 - Emergency action plan
 - Evacuation procedures with a detailed plan on both individual and mass evacuation

The EO should be able to verify the number of athletes who entered and exited the swim course at every moment of the event, through the use of timing mats.

The plan should include the basic steps:

- confirm that there is a pre-start timing mat that captures the athletes' timing chip;
- manually count the number of athletes who come out of the water;

If an athlete is missing an emergency action plan should be activated. The main steps in this process should be:

- check all chip-timing records;
- check lifeguards' manual records;
- check with the transition officials so see if all bikes have exited transition;

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- perform a visual check of the swim course by the lifeguards.
 - If there is no sign of the athlete on the swim course, a water-based search must be conducted.

Transition

TRANSITION LAYOUT

GENERAL

- Flow, entry and exit angles: there should be no sharp angles and the flow should be in one direction for both transitions;
- The transition area should be separated from the spectators and the other areas adjacent to it with low hard fences.
- Transition area should be on a smooth surface, if on grass, it must be without holes or hazards and must be carpeted or closely cropped;
- Each AG athlete must be provided with a minimum width of 0.75m of rack space, in a cycle event or 0.50m of floor space in a non-cycle event;
- The racks must be secured with a minimum of 5m between the rows;
- On each row of racks there should only be one side for athletes' positions. If not, a larger space should be given to each athlete;
- The transition entry and exit should be clearly marked with signs 3m to 4m high
- The design of the transition area will ensure that all athletes run an equal distance with or without their bikes;

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- The design of the transition area should be set up so that there is no crossover of athletes;
 - The transition needs to be set up and secured one day before the start of the race
 - The design of the transition and the athletes' a location should allow that AG athletes are setting up while other races are ongoing and that athletes can check out from 15minutes after the finish of the last athlete of his/her race
 - The rack lines should be clearly marked to indicate the numbers for that line
 - The mount line should cover the full width of the transition exit and be clearly marked with a green tape or carpet. The width of the mount line should be 0.4m with white stripes on both sides;
The dismount line should cover the full width of the transition exit and be clearly marked with a red tape or carpet. The width of the mount line should be 0.4m with white stripes on both sides;
 - In case of two transition areas, the set-up of the athletes' positions must be exactly the same in both;
 - Coaches and family are not allowed in the transition area during the race;

The final transition layout should be approved by the TD.

TRANSITION PERSONNEL

a) Staff and volunteers

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- Transition entrances and exits must be controlled by clearly uniformed security personnel;
 - There should be adequate numbers of trained volunteers to direct and manage the flow of athletes to maintain the order and the cleanliness of the transition area; and
 - The EO must provide volunteers to the transition area with the following roles: body marking (if no body decals are available), bike mechanic, athletes' flow security; and
 - Job descriptions of the different tasks can be accessed through the TD or TAS

b) Technical Officials

- The number of technical officials assigned to the transition area will be determined by the TD based on the number of athletes in the competition;
- Two officials will be assigned to the mount and dismount lines, if possible. If TOs are not available these positions should be taken by volunteers provided by the EO and instructed by the Chief Transition;

TRANSITION EQUIPMENT

Transition area equipment shall include:

- Carpet – in local events carpeting is optional. Where used, carpet should be safe, with overlapping edges well taped to prevent athletes tripping. There should be no rocks or holes under the carpet. Where carpet is not used, all loose impediments should be removed and pot-holes filled.

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- Marked spaces / boxes (Aquathlon) - each athlete should have a marked space at least 0.3m wide and 0.45m deep, marked with their number. Where boxes are provided, the box for each athlete with dimensions: 0.45m x 0.3m, and 0.25m in height;
 - Bike Racks (Duathlon / Triathlon) – Bike racks should be at least 1.2m high and each space 0.5m wide, marked with the athletes' numbers, sequentially. At both ends of each row, a 1m x 1m sign should be placed to show the race numbers and age group categories that can be found in that row;

TRANSITION AREA PROCEDURES AND OPERATIONAL PLANS

- Sufficient space should be allowed in transition for athletes to move safely past other athletes in process of changing.
- Note that later Age Groups may be placing equipment in transition while races are in progress. Sufficient space should be provided along the sides to allow this movement without impeding athletes in a race.
- Volunteers should be available throughout the race to ensure a smooth, unimpeded transition for athletes.

RELAY

A clearly marked relay area should be positioned inside transition:

- At least 4m long and 2m wide
- Near to the entrance to transition (from each leg)

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- It must be clearly marked
 - It must not impede the flow of traffic through transition
 - Competitors waiting for their team mate must not spill out of the relay area

Bike Course

General

- Course width: preferably 6m;
- Must be secure and totally closed from traffic, but must at least be separated from traffic by clear markers;
- The road surface must be hard, smooth and without debris or other hazards;
- Crossovers during the bike segment are not allowed;
- The course should avoid railroad tracks, bridges with gates, drawbridges etc.;
- Pedestrian crossings should not be within 100m of transition areas and turns;
- 180° turns on a 2-lane road should be avoided, if possible;
- Out and back courses should be reviewed with the TD;
- Specific race areas, including, but not limited to, transition, wheel station, feed station, etc. will be secured from spectators with low fencing and managed by security personnel;
- The final bike course layout should be approved by the TD.

Bike Course Personnel

a) Police

- Police or security personnel must be present at every access road, intersection and turn onto the course; and
- If there is a police motorbike on the course it must be a minimum 200m in front of the leader and only on the first lap of the bike.

b) Volunteers

- Trained volunteers should be assigned to the bike course;
- Volunteers will ideally be trained regarding first aid;
- The minimum number of volunteers is determined by the course layout and approved by the TD;
- Each of the volunteers should be equipped with a whistle and a flag. Volunteers should be briefed on use of flags.

c) Technical officials (assuming draft illegal cycle)

- The number of officials on motorcycles patrolling the bike course will be determined by the TD; and
- A vehicle control official will determine the number of motorcycles on the competition course at any one time.

d) Medical

- Trained medical personnel should be positioned at strategic points on the bike course, as agreed with the TD;
- Ideally a paramedic on a motorcycle should be available for the event and parked at a key location, in agreement with the TD
- Medical personnel should be equipped with radios or cell phones;
- Ambulances should be positioned at strategic points on the bike course, as agreed with the TD;
- Provisions should be made to get slightly injured athletes and their bikes back to the transition area without interfering with the field of play; and
- Refer to the medical plan section for the full event medical details.

e) Motorbike drivers

The drivers must:

- Be mature individuals who can demonstrate the required essential experience and skills (refer below);
- Be available for pre-race training and meetings;
- Have suitable large capacity, easily maneuvered, motorcycles with ample passenger space that are well maintained. Motorcycles must have valid insurance coverage, have passed the vehicle periodic inspection and have a valid road tax.
- Hold a valid motorcycle license;

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- Wear suitable riding gear and approved safety helmets according to the local police requirements;
 - Ensure that motorcycle fuel and oils levels are adequate for the entire event;

Bike Course Equipment

a) Hard fencing is required:

- In high traffic areas;
- On the road leading in and out of transition for at least 100m;
- All corners; and
- The fencing and barrier plan should be submitted to the TD for approval.

b) For Major Games the whole bike course should be fenced;

c) Soft fencing supported by individual metal or wooden posts is not allowed for safety reasons;

d) Spectator bridges and crossing areas should be planned and marshals placed to manage crossings;

e) Two (2) motorbikes should be provided for the technical officials; these are in addition to any motorbikes that are required for paramedics;

If they are used cones should be placed:

- Starting 5m before, during and after the corner, the cones should be placed maximum every 0.5m; and

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- In the rest of the course, the cones should be placed at a maximum distance of 6m.
- f) A detailed plan of the bike course equipment deployment should be created with the exact location of the equipment and the distribution timelines. This plan should be approved by the TD.

Bike Course Procedure and Operational Plans

- a) All roads must be checked (preferably by motorcycle) prior to start of the competition;
- b) Course measurement: Certified course measurement is required and must be submitted to the TD. GPS may be used to measure the bike course, which should be the prescribed event distance plus or minus 10%. The tolerance margin that can be accepted for the distance of the bike segment is determined in the ***ITU Competition Rules***;
- c) Encased or covered plastic straw bales or similar safety devices must be used to protect athletes on sharp corners and around dangerous objects;
- d) If speed bumps or other anti-speeding devices exist on the course, they must be removed or covered with matting, ramps or other 'smoothing' devices, where possible; If they cannot be removed there should be signage or marshals placed before the obstacle to warn riders.

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- e) If there are uneven surfaces (cobblestone), these should be highlighted in the event manual and again during the pre-start briefing;
 - f) A number of operational plans need to be reviewed for guaranteeing the athletes' safety and the fairness of the course. The level of detail included in each of the plans will be determined by the TD according to the level of competition.
 - g) A motorcycle should lead out the first group of riders to ensure the road ahead is clear
 - h) A motorcycle should follow the last rider on the last lap (for a multi-lap race) to ensure that all athletes are off the course and that the cycle course can be closed

Traffic management plan

This plan should include:

- The proposed course and the lane/ closure information;
- Identification and assessment of the traffic impact;

Detailed traffic management measures:

- Assessment of the public transportation management affected;
- Details of provisions made for affected emergency vehicles, heavy vehicles, cyclists and pedestrians;

Assessment of effect on proposed traffic management measurements on traffic movements in adjoining streets;

- Proposed public tenant notifications.

Bike operational plan - A detailed bike operational plan should be submitted to the TD for approval which includes:

- The sector break down of the bike course;
- Volunteer positions and the contingency plan;
- Volunteer job description;
- The pedestrian crossing points;
- The emergency evacuation routes;
- The check in / out process of the volunteers;
- The transportation and food services of the volunteers;
- FOP equipment distribution.

FOP Bike Risk Assessment- An assessment of all the potential risks that can affect the athletes should be conducted by the EO and the TD.

Bike Course Wheel Station

This is optional for Age Group events, but may be used for National Championships

Lap Counting

It is the responsibility of the athlete to monitor their laps and ensure they complete the correct number of laps.

The EO should provide electronic timing to track competitors on course and may provide manual checks at key points such as U-turns and the finish. These can be used to validate that an athlete has correctly completed the course in case of appeals.

For ITU / ASTC sanctioned events refer to ITU EO Manual for additional requirements.

Run Course

General

- a) The road surface must be hard and smooth. Steep curb drops or other such hazards should be altered for safety purposes. Steps up or down are potentially dangerous for athletes;
- b) Course width: minimum width is 3m;
- c) The age group standard run course should be between 1-2 laps;
- d) The junior run course should be between 1-2 laps;

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- e) The courses must be secure and totally closed from vehicular traffic;
 - f) Turns should be wide and swept;
 - g) There will be no crossovers;
 - h) The course must be sufficiently marked so that there can be no doubt as to the correct route;
Pedestrian crossings should not be within 100m of transition area, turns and finish area;
 - i) The run U-turns should not include any objects that will allow the athletes to grab it and support their turn.

Run Course Personnel

a) Staff & Volunteers

- Trained volunteers should be assigned to the run course;
- The minimum number of volunteers is determined by the course layout; and
- Spotters should be considered for identifying the first and the last athlete.

b) Police

- Police or security personnel must be present at every access road, intersection and turn on the course; and

c) Technical officials

- The number of officials patrolling the age group run course on bicycles will be determined by the TD.

d) Medical

- Trained medical personnel should be positioned along the run course, as agreed with the TD;
- Medical personnel should be equipped with radios or cell phones;
- Provisions should be made to get injured athletes back to the transition area without interfering with the field of play; and
- Refer to the medical plan section for the full event medical details.

e) Spectators

- Spectators should be prevented from entering the course and/or interfering with the competition;

Run Course Equipment

- a) There will be distance markers 1km from start and 1km to finish.
- b) All turns will be marked with arrows leading into and out of the turns.
- c) Toilets should be provided every 5km in middle/long distance events.
- d) Cones should be provided in the areas that need to separate the run flow. If the specific course is used during the bike leg, please refer to 4.5.3.j

e) The cones should be placed:

- Starting 5m before, during and after the corner, the cones should be placed maximum every 0.5m; and
- In the rest of the course, the cones should be placed at a maximum distance of 6m.

Run Course Aid Station Layout

- a) The distance between the run course aid stations should be a maximum of 1.25km unless otherwise ruled by the TD.
- b) Run course aid stations should extend 40m.
- c) They should be on a straightaway easily accessible to the athletes.
- d) There should be a run course aid station between 200m and 400m after the exit from the transition area.
- e) A littering zone should be attached to the run course aid station starting 20m before and extending up to 100m after. The littering zones should be clearly marked with signs and a line on the ground.

Aid station Personnel

- a) Staff and volunteer:

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- Aid stations should have a minimum of 4 trained volunteers. The volunteers should use plastic gloves at all times;
 - Assign volunteers to keep the station clear of litter (bottles, empty cups and sponges);

Aid Station Equipment

a) Furniture fixtures & equipment (FF&E)- The following should be provided:

- Tables according to the number of participants; and
- 1 pop up tent (3m x 3m).
- Plastic gloves

b) Liquids:

- Water and isotonic fluids can be offered. The EO should provide the equivalent of two (2) bottles of 500 ml water per athlete per aid station per lap;
- Water should be provided first, leading to the isotonic drinks and following by the food;

Run Course Penalty Box

This is optional in Age Group events. A Penalty Box may be used in National Events.

FINISH AREA

Finish Area layout:

- Finish chute length: No less than 50m in length and 5m in width.
- After the finish, there should be a post-finish area at least 5m wide and 10m long

Finish Area Personnel

a) Security

- Security personnel must be assigned to all access points; and
- Security personnel must ensure to keep the finish and post finish area controlled.

b) Technical officials

- There will be a team of technical officials assigned to the finish area;
- The technical officials will monitor the finish line for infringements and will make judgement on any ties
- For National Championships the finishing tape will be held by Technical Officials reporting to the Chief Finish

c) Staff & Volunteers

- A limited number of finish line volunteers will be assigned under the direction of the TD

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- Volunteers will:
 - Hold the finishing tape (in AG events);
 - Collect timing chips;
 - Give out finisher medals; and
 - Give out drinks, towels, etc. as made available by the EO

d) Medical personnel

- Medical personnel will only enter the finish area in case of an emergency; and
- Doping control chaperones will approach their assigned athletes only as they exit the secured finish area. A doping control spotter can be located in the secured finish area for recording the numbers of the selected athletes for doping control.

e) Timing personnel

- Timing personnel will report to the Chief Finish
- Timing personnel must not be in the finish area;
- Timing personnel, reporting to the Chief Finish, will manually record the finish times for runners as a backup to the electronic timing system;

f) Photographers

- Official photographers are allowed in the post-finish area, but should not encroach on the finish line or obstruct the view of the finish officials and

timing officials.

Finish area procedures & operational plans

Recovery Area

- Where possible the EO will provide a recovery area near to, but not encroaching on, the finish zone.
- There should be a tented area to provide shade and if possible beds, ice, towels and drinking water available.
- The recovery area should be near to the medical facility.

EVENT SUPPORT

MEDICAL

Medical Plan

The EO should prepare a detailed medical plan for the event, to be shared with the TD / TAS at least one month before the event. The Medical Plan should include the following:

a) Medical Team

A doctor must be present on site during any type of multisport event. The medical team should also include:

- Nurses
- Paramedics
- Trained first-aiders

b) Medical facilities

Medical facilities should include:

- Ambulance (minimum two (2))
- Motorcycles (for paramedics)
- Tents for medical team

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- Beds in medical facilities
 - Stretchers
 - General medical equipment
 - Medication and supplies for treating common race injuries

c) Hospitals

Details of the nearest hospitals should be given, together with the shortest route

d) Ambulance Access

There should be direct access for ambulance to most parts of the course, including beach, cycle course and run course.

The medical plan should also note any areas which do not have direct ambulance access.

ENVIRONMENTAL DATA

Environmental data includes weather, tides and pollution. The EO should document all environmental data before and during the event.

The EO must publish a documented contingency plan covering all possible environmental events, at least one month before the event.

Weather Forecast

The weather forecast should be monitored daily in the week before the event.

Tides

The EO should refer to official Tide tables and provide details of the state of tide, current and water height during each of the swim waves.

Pollution

Pollution may refer to Air Quality and Water Quality, which should be monitored daily in the week before the event.

In case the air / water quality is deemed below normal there should be daily communication with the TD.

Air / water quality should be reviewed on the day before the race and again on the morning of the race.

If air / water quality is seen as a hazard to health of the athletes the event should be postponed to a later date or cancelled.

Whilst the TD may give advice, the final decision on cancellation belongs with the EO.

COMMUNICATION PLAN

Radio

The EO should provide sufficient radios for TD, ATD and all Chief TOs. Where possible, mobile TOs, including Assistant Bike and Assistant Run should also have radios.

All radios should be fully charged, sufficient to last for the duration of the event.

There should preferably be separate bands for communication between EO team (including volunteers), medical team and TOs.

Cell Phones

Cell phones, including messaging services, may be used as a back-up communication system.

Athlete Briefing

In one-day Age Group events there is limited time for a detailed briefing.

Full briefing information should be published in the race guide, at least one (1) week before the event.

There should be a short athlete briefing before the start of each group, to remind athletes of the details of the course and any special features or changes from the briefing document.

APPENDICES

APPENDIX A: DEFINITIONS:

Age	The age of the athlete on the 31st of December of the year of the competition.
Age group Team Managers Briefing	Meeting with the Age group team manager and coaches in which they are informed by the Technical Delegate about all the specifications of the race.
Aid/Outside Assistance	Any kind of material support or personal assistance received by the athlete. Depending on its nature, it may be allowed or forbidden
Ambush Marketing	Deliberately using the opportunity of live television and media photographers to expose the sponsor logos larger than the approved sizes, and/or equipment or objects not provided by Local Organising Committee or ITU.
Appeal	A request to the Competition Jury of an event or the ITU Arbitration Tribunal for a review of the decision of the Race Referee/Competition Jury. (Note: This cannot include an appeal against the finding of a doping violation or against the penalty imposed for the finding of a doping violation. These appeals must be directed to ITU Arbitration Tribunal independently.)
Appellant	An athlete submitting an appeal.
Aquabike	Multisport which combines swim and cycle in two segments: the first segment is swimming and finishing with cycling.
Aquathlon	Multisport which combines swim and run in three segments: the first segment is run, followed by swimming and finishing with running.
Assistance	Any attempt by an unauthorised or unofficial source to help or to stabilise an athlete.
Assistant Chief Technical Official	Responsible to the Chief Technical Official for coordinating the employment of the Technical Officials assigned to his/her race course segment or area.
ASTC	Asian Triathlon Confederation
Athletes	The competitors who register for and compete in ITU Events.

Athletes' Briefing	Meeting with the athletes in which they are informed by the Technical Delegate about all the specifications of the race.
Bicycle	The bicycle is a human powered vehicle with two wheels of equal diameter. The front wheel shall be steerable; the rear wheel shall be driven through a system comprising pedals and a chain. Bicycles are also referred as bikes.
Blocking	The deliberate impeding or obstructing of progress of one athlete by another. An athlete on the bike course, who is not keeping to the appropriate side of the road.
Blue card	Card, which is used to inform athletes when being penalised for drafting infringement during cycling segment.
Charge	The contacting of one athlete by another from the front, rear or side, and hindering that athlete's progress.
Check in	Control established at the entrance of the athletes lounge and at the entrance of the transition area, before the race. In both places a time of admission is set by the Technical Delegate.
Chief Technical Official	Appointed by the Technical Delegate and is responsible for the control and co-ordination of the deployment of Technical Officials.
Clean Start	All the athletes start after the horn. The race continues.
Coaches meeting	Meeting with the coaches in which they are informed by the Technical Delegate about all the specifications of the race.
Competition Jury	The Competition Jury appointed and chaired by the Technical Delegate. It is held responsible to determine the eligibility of the protest or appeal, to hear and to rule on all appeals against decisions handed down through the Race Referee, including decisions on protests.
Conflict of interest	A set of circumstances that creates a risk that professional judgement or actions regarding a primary interest will be unduly influenced by a secondary interest
Continent	Each of the five geographical divisions established in ITU. They are: Africa, The Americas, Asia, Europe and Oceania

Continental Technical Officials (CTOs)	The Level 2 Technical Officials certified by ITU.
Course	A forward line of progress from start to finish, which must be clearly marked and measured to prescribed specifications.
Crawling	The action by an athlete of bringing three or more limbs in contact with the ground, either together or in any sequence, to enable forward propulsion.
Cycling Segment	Part of the race course over which it has been defined in the Athletes' Briefing the bike is to be ridden, walked or carried within distinctive lane boundaries. The bike course commences from the Mount Line and concludes at the Dismount Line.
Decision	The application and interpretation of the ITU Competition Rules by Technical Officials and/or Competition Jury.
Dismount Before The Dismount Line	The athlete must have one foot in contact with the ground before the dismount line as the athlete dismounts the bike. If this contact doesn't occur, it is considered an infringement of the rules.
Dismount Line	A designated line at the entrance of the transition area from the bike course before which athletes are to dismount their bikes fully and proceed to the bike racks. The Dismount Line will normally extend for the width of the entrance to the transition area and be identified by flags/line/Technical Official, or combinations thereof.
Disqualification	A penalty assigned as appropriate for the rule violation, which has been reported, or for which a protest has been upheld. As a result of this penalty, the athlete will not be given finish or split times for the event, no account will be taken of the athlete when placings are assessed for any category or for the race as a whole, and the athlete's results will appear as DSQ.
Draft Zone Bicycle	Zone defined by an athlete during the cycling segment which is extended to the whole width of the road and 10 meters long in the standard and shorter events and 12 meters long in middle and long distance events.
Draft Zone Motorbike	Zone defined by a motorbike during the cycling segment which is extended to the whole width of the road and 12 meters long.

Draft Zone Vehicle	Zone defined by a vehicle during the cycling segment which is extended to the whole width of the road and 35 meters long.
Drafting	To enter in a drafting zone and not completing the overtake in 20 seconds in standard and shorter events or 25 seconds in middle and long distance events.
Duathlon	Multisport which combines cycle and run in three segments: the first segment is running, followed by cycling and finishing with running.
Early start	When an athlete's foot crossed the vertical plane of the start line, before the start signal.
Elite	Elite athletes are those competing in elite races.
Event Organisers Manual (EOM)	A document which has been developed to ensure the implementation of consistently high global event management and marketing standards.
Expulsion	An athlete penalised by expulsion will not be permitted, during his or her lifetime, to take part in any ITU sanctioned event, or any event sanctioned by one of its member associations (National Federation) affiliated with the ITU.
Field of Play (FOP)	The course on which the competition portions of the ITU event will take place.
Final	Last round of an event in qualifying round format. The final decides the winner and the medallist of the event.
Finisher	An athlete who completes the entire race course within the rules and crosses the finish line, or a vertical extension of the forward edge of the finish line, with any part of the torso (i.e. as distinct from the head, neck, arms, legs, hands or feet).
Force Majeure	Action of the elements, strike, lockout or other industrial disturbance, unlawful act against public order or authority, war blockade, public riot, lightning, fire or explosion, storm, flood, blacklisting, boycott or sanctions however incurred, freight embargo, transportation delay or any other, event which is not reasonably within the control of the party affected.
Incapable Athlete	An athlete deemed by race medical staff as not being able to continue the event without the likelihood of causing injury to him/herself or another athlete.

Indecent Exposure	The wilful uncovering of either or both buttocks, or of the pubic area or of the genital area. In addition, in the case of a female athlete, the wilful complete uncovering of one or both nipples.
Inland Water	Lakes, lochs, canals and rivers up to the point the tide affects them in terms of changes to their level.
Interference	A deliberate block, charge or abrupt motion, which impedes another athlete.
International Technical Officials (ITOs)	The Level 3 Technical Officials certified by ITU.
International Triathlon Union (ITU)	The world governing body of triathlon, duathlon, aquathlon, winter triathlon and all other related multisport, a non-profit corporation domiciled and residing at Maison du Sport International, Av de Rhodanie 54, CH-1007 Lausanne, Switzerland.
ITU Competition Rules	The document that contains all the rules and regulations that governs fair and safe competitions.
ITU Members	The National Federations and Continental Confederations affiliated to ITU.
ITU Rules	The ITU Event Organisers' Manual (latest edition), ITU Competition Rules, ITU Constitution and By-Laws, ITU Uniform Rules, ITU Anti-Doping Rules and WADA Code, ITU Athletes' Agreement, ITU Qualification Criteria, ITU Ranking Criteria and any other rules adopted and amended by ITU from time to time and available for consultation via the download section of the ITU's official website www.triathlon.org .
Invalid Start	Some athletes start clearly before the horn and some others stay behind the start line. The start is not clean and is declared invalid.
Last Biker – First Runner Scenario	This occurs when the bike and run courses are partly common, and the first runner reaches the point where both courses merge and there are still bikers on the course before this point.
Local Organising Committee (LOC)	The organising entity of an ITU event.

Mount After The Mount Line	The athlete must have one foot in contact with the ground past the mount line as the athlete mounts the bike. If this contact doesn't occur, it is considered an infringement of the rules.
Mount Line	A designated line at the exit from the transition area onto the bike course or after which athletes are to mount their bicycles and proceed. The Mount Line will normally extend for the width of the exit of the transition area and be identified by flags/line/Technical Official, or combinations thereof.
National Federation (NF)	National triathlon governing body affiliated with ITU.
National Technical Officials (NTOs)	The Level 1 Technical Officials certified by the National Federation.
Overtake	On the bike course, when the leading edge of the front wheel of the overtaking bike moves in front of the leading edge of the front wheel of the bike being overtaken. An athlete can pass another athlete only on the appropriate side.
Pack	Two or more athletes with overlapping draft zones.
Pass	When one athlete's bike draft zone overlaps another athlete's bike draft zone, makes continual forward progress through that zone and overtakes within a maximum period of 20 seconds. An athlete can pass another athlete only on the appropriate side.
Penalty	The consequence on an athlete, who is assessed by an ITU Technical Official to have unintentionally committed a rule infringement/violation. A penalty may take the form of a time delay, disqualification, suspension or expulsion.
Penalty Box	An area on the bike course or the run course, set aside for the implementation of a time penalty for a rule infringement/violation.
Prosthesis	An artificial device used to replace a missing body part.
Protest	A formal complaint against the conduct of another athlete or a race official, or against the conditions of the competition.
Race Referee	A Technical Official, who is responsible to the Technical Delegate to hear and make final decisions on all rules violations reported by Technical Officials.

	Technical Delegate appoints the Race Referee
Red card	Card, which is used to inform athletes about disqualification.
Region	Group of National Federations, from the same or different continents, linked by geographical or cultural reasons.
Registration	Point of control established at the entrance of athletes briefing and coaches meeting. Attenders to these meetings will sign the attendance list.
Results	The timed finish positions of all athletes after violation reports have been ruled on, protests and appeals have been heard, and penalties have been awarded.
Right of Way	When an athlete has established a lead position and pursues a desired course within the limits of the ITU Competition Rules.
Round	Each of the stages of an event with qualifying format. One event in qualifying round format has two rounds: semi-finals and final.
Run Course	Part of the race course, which has been defined at the Athletes' Briefing where the athlete is to run or walk within distinctive lane boundaries. In triathlons and aquathlons, the run course commences at the exit from the transition area and concludes at the Finish Line. In duathlons, the first run course commences at the start line and finishes at the entry to the transition area; the second run course commences at the exit from the transition area and concludes at the Finish Line.
Sanction	A permit issued by the National Federation for the conduct of an event. The issue of such a permit is a declaration by the sanctioning authority that plans for the event have been thoroughly inspected and have been found to comply fully with the requirements of National Federation operating requirements to provide the greatest potential for the conduct of a safe and fair event.
Sea and Transition Water	Ocean, seas and the part of the river affected by the tides, including river mouths, deltas, estuaries and rias.
Semi-final	Preliminary round of an event in qualifying round format. The semi-finals determine the athletes qualified to the final.

Sport Class	Paratriathlon sport class is a category defined by ITU in which athletes are categorised in reference to an activity limitation resulting from impairment.
Sportsmanship	The behaviour of an athlete during competition. Sportsmanship is interpreted as fair, rational and courteous behaviour, while bad sports conduct is any behaviour judged to be unfair, unethical or dishonest, a violent act, intentional misconduct, abusive language, intimidating behaviour, or persistent infringement of the rules.
Standard Bridge Piece	A rigid piece, of plastic or metal, which joins both sides of the handlebar clip- on at the ends and is commercially available.
Stop and Go	Penalty consisting on stop, correct the fault and continue the race.
Sub-class	Division made inside a paratriathlon sport class. Each paratriathlon sub class includes Paratriathletes from the same sport class and having similar impairment conditions.
Suspension	<p>An athlete awarded this penalty will not be permitted during the stated suspension period, to take part in any event sanctioned by ITU or its member associations (where determined) affiliated with ITU.</p> <p>For any suspension because of a doping violation, the athlete will not be able to compete in any IOC affiliated sport at any local, regional, state, national or international level. The suspension period may vary in length, depending on the severity of the violation. In the case of a suspension imposed by ITU, the length of the suspension will be determined by the ITU Arbitration Tribunal.</p>
Swim Course	Part of the race course over which it has been defined in the Athletes' Briefing that the athlete is to swim within distinctive lane boundaries. In triathlons and aquathlons, the swim course commences at the start line and concludes at the water's edge/exit prior to entry to the transition area.
TAS	Triathlon Association of Singapore
Technical Delegate	A Technical Official, who is qualified by ITU, and responsible for ensuring all aspects of the ITU Competition Rules and ITU Event Organisers' Manual are fulfilled in preparation for, during, and after the event. Where appeals are lodged, the Technical Delegate will be the Chair of the Competition Jury. The Technical Delegate will normally be responsible for conducting or overseeing the conduct of

	event sanctioning.
Technical Official	A member of the joint team of International Technical Officials (ITOs), Continental Technical Officials (CTOs) and National Technical Officials (NTOs) at an ITU event.
Time Penalty	Penalty consisting on stop at the penalty box for a certain time. Early start time penalty is served in T1 instead the at the penalty box.
Torso	The human body excluding the neck, the head and the limbs.
Transition Area	A location within a defined boundary, which is not a part of the swim course, the bike course or the run course and within which each athlete is allocated an area for the storage of individual items of clothing and equipment.
Triathlon	A sport of individual or team character and motivation, which combines swimming, cycling and running skills in continuum.
Valid Start with Early Starters	Start in which few athletes started before the signal. Early starters will receive a time penalty in Transition 1
Venue	All warm-up and competition areas, the air space above such areas, official hotel, broadcasters, press and media areas, sport expo area, contiguous areas, including without limitation spectators' area, VIP areas, transition area, finish area and all other areas under control of Local Organising Committee.
Violation	A rule infringement which results in a penalty.
Warning	A caution issued by a Technical Official to an athlete during the course of a race. The purpose of a warning is to alert the athlete of the potential for a rule violation to occur and to promote a pro-active attitude.
Winter Triathlon	Multisport which combines different winter sports. It may have two different formats, either starting with running on snow, followed by cycling on snow and finishing with cross country skiing, or starting with snow shoeing followed by skating on ice and finishing with cross country skiing.
Yellow card	Card, which is used to inform athletes about infringements which may result in warning, time penalty or stop and go.

APPENDIX B: SAMPLE DOCUMENTS

Sample documents will be made available on request.