

# The Book of HURT



2024

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# AT A GLANCE

## Date / Location

- Saturday, January 13, 2024 (06:00) – Sunday, January 14, 2024 (18:00).
- Mountains above the city of Honolulu (island of O‘ahu, state of Hawai‘i).

## Event Overview

- 100 miles over 5 laps (partial out and backs) in a semi-tropical rainforest.
- 24,500 feet of cumulative elevation gain (and 24,500 feet of cumulative loss) over the course of 100 miles.
- 99% single-track trails, 1% asphalt.
- Moderately packed soil, generously interspersed with roots, rocks, puddles, and mud wallows.
- Narrow trails through forest, along exposed ridges, and past vertical embankments.
- 20 stream crossings (four per lap).
- Three aid stations per lap.
- 36-hour time limit.

## Important Dates

07/25/2023	Start of registration period
08/06/2023	End of registration period
08/19/2023	HURT Lottery
08/21/2023	Entrants and waitlist posted online
11/15/2023	Deadline for submitting Trail Work requirement forms
11/15/2023	Deadline for event withdrawal with refund
12/31/2023	End of waitlist invitations
01/05/2024	Announcement of runner bib numbers
01/12/2024	Pre-race briefing (In person, location to be announced)
01/13/2024	Start of race
01/14/2024	End of race
01/15/2024	Post-race banquet (Location to be determined)

# RACE ENTRY

## Sign-up

Registration for the HURT 100 will take place on [HURT100.com](https://hurt100.com). Our race page on UltraSignup will link to [HURT100.com](https://hurt100.com). Please read the instructions below for registration information.

This event is open to participants who are at least 18 years of age. Registration will open on July 25, 2023, and will close at midnight (HST) on August 6, 2023. All interested runners must complete the race application at [HURT100.com](https://hurt100.com).

After the lottery is conducted on August 19, 2023, and runners are chosen, payment will be processed by UltraSignup. Upon successful processing of the transaction, an applicant is deemed an entrant in the event. *If payment cannot be processed for any reason, the applicant has seven days to resolve the problem; after that period, the applicant is replaced by the first waitlisted runner and moved to the end of the waitlist.*

## Entry Fee

The entry fee for the HURT 100 2024 is \$325 (USD).

## Trail Work Requirement

Entry to the 2024 *HURT 100* will require eight hours of volunteer trail maintenance. Volunteering at an ultrarunning event, or pacing/crewing during an event, DOES NOT fulfill the trail work requirement. Trail work for the 2024 *HURT 100* must be completed between November 16, 2022, and November 15, 2023. Full details of the requirement are on the Trail Work form, found on [www.hurt100.com/trail-work/](https://www.hurt100.com/trail-work/)

Entrants not submitting verified Trail Work forms by the deadline will be removed from the event.

Refunds for removed runners will be in keeping with the Refund section below. If a runner is removed for not completing the trail work requirement, a waitlisted runner will be selected. The waitlisted runner will have seven days to submit the Trail Work form.

All entrants are encouraged to complete their trail work as soon as possible. This includes entrants near the top of the waitlist. If you are not selected for the lottery, you may potentially be selected off the waitlist.

Trail Work forms should be submitted to [hurt100trailwork@hurthawaii.com](mailto:hurt100trailwork@hurthawaii.com) by November 15, 2023.

## Qualifying Event

To make sure that entrants have enough experience to attempt our grueling 100-mile race, HURT has implemented a requirement of a qualifying run of a minimum of 50 miles. Any official run of 50 miles or longer, with publicly available results, is acceptable.

You must finish the run within the official cutoff times for that event. Completing 50 miles of a longer event that you did not finish will not be accepted.

Completing 50 miles or more as part of an official, timed running event, such as a 12-hour, 24-hour, or similar event, is also acceptable.

Virtual events and events created solely for the purpose of producing a qualifying run will not be accepted.

This run must have been completed within the two years prior to the opening of registration, from July 26, 2021, to July 25, 2023. It is the responsibility of the applicant to list their qualifying run at the time of application, along with a web link to where the results can be found.

## Runner Selection – HURT 100

As we continue to grow in popularity, HURT has adapted our selection process to provide the greatest opportunity for the ultimate ultrarunning experience. To meet the needs of our HURT veterans, those waitlisted from previous HURT events, newcomers to HURT, and our State and County partners, we have developed the following selection process for entry into the HURT 100.

The HURT 100 will have three lottery categories, determined automatically based on HURT historical records:

1. **HURT Veterans** – up to 18 slots will be allocated to this lottery, which is for anyone who has three or more HURT 100 finishes. Applicants will receive one kukui nut for each HURT 100-mile finish that contributes toward the runners' veteran category. If 18 veteran slots are not taken, remaining slots will be rolled into "Everyone Else".
2. **Waitlisted but Never Selected** – up to 40 slots will be allocated to this lottery, which is for those who have applied in the past but have never been selected to run in the HURT 100.
3. **Everyone Else** – up to 60 slots will be allocated to this lottery, which is for everyone **not** in the previous two categories of lottery. This includes first-time applicants to the HURT 100 and those who have been selected for the race in the past (including entrants who finished HURT one or two times, and entrants who were selected but Did Not Start (DNS), Did Not Finish (DNF), or declined entry).

The initial entrant list will include 140 runners, including the reserved slots listed below. HURT has a goal of starting 135 runners (or the current permitted limit at the time of the event). HURT has developed the following selection process for the initial 140 entrants, to reflect the goal of making the selection process more transparent to all.

## Reserved Slots

HURT has reserved up to 22 of the 140 slots for HURT use:

1. HURT immediate previous year (2023) top 3 finishers in each category (men, women, non-binary): Up to nine slots.
2. HURT Board Discretion: Ten slots. HURT can use this at any time, for any reason that HURT feels can add to the event.
3. Peacock Challenge 55: Up to three slots (One man, one woman, one non-binary) to Peacock Challenge finishers who are also on the HURT 100 waitlist.
4. Any slots not awarded will be used as additional draws from the waitlists.

CATEGORY	AVAILABLE SLOTS	CADENCE OF PULL
HURT Board Discretion	10	Any time
Previous year top 3 in each category	9	Any time
Peacock Challenge 55	3	After Lottery
<b>TOTALS</b>	<b>Up to 22</b>	

All runners selected in the above categories must have entered HURT and fulfilled all the entry requirements for the HURT 100. Selected runners will be notified by email from [HURT100.com](https://hurt100.com) with an invitation to participate and information on making payment. The recipient has seven days to accept and submit payment, and the stored registration is activated.

## Lottery Process

After the HURT-reserved 22 slots, 118 slots remain OPEN for the lottery. HURT will select the following number of applicants from each pool. The selection process will be by separate lottery for each pool.

1. 18 HURT Veterans
2. 40 Waitlisted but Never Selected
3. 60 Everyone Else

CATEGORY	AVAILABLE SLOTS	CADENCE OF PULL
HURT Veterans	18	First Pull
Waitlisted but Never Selected	40	Second Pull
Everyone Else	60	Third Pull
<b>TOTALS</b>	<b>118</b>	

## Kukui Nut Assignment Process

The HURT 100 conducts a weighted lottery. Each entrant will receive kukui nuts, which are “tickets” in the lottery drawing. Each kukui nut increases an entrant’s odds of being selected. Kukui nuts are awarded as follows:

- Each qualifying applicant receives one kukui nut for applying.
- Applicants who were waitlisted in the three previous years and **were selected for HURT at any time in the past (finished or DNF)** will receive one kukui nut for each year on the waitlist they were not selected.
- Applicants who were waitlisted in the three previous years and **were never selected for HURT at any time in the past** will receive two kukui nuts for each year on the waitlist.
- Applicants receive one kukui nut for each HURT 100 finish in the five previous years.
- Applicants in the Everyone Else lottery with one or two HURT 100 finishes occurring more than five years ago will receive one kukui nut.
- Applicants who had signed up through Signup Genius on the HURT 100 website and were official volunteers for the HURT 100 in 2023 will receive one kukui nut.
- Applicants who are Hawai’i residents will receive one kukui nut.

## Conduct of the Lottery

Board members will tabulate the number of kukui nuts allotted to each entrant, based on HURT’s historical data and the **data provided by the entrant** during registration. All data are verified through records maintained by the HURT 100. The number of kukui nuts for each entrant will be posted on the HURT website before the lottery so that applicants can check their number of kukui nuts and selected lottery category.

Following the lottery, selected runners will be sent an invoice for online payment by UltraSignup. Runners will have seven days in which to complete payment, at which time they are officially accepted into the



HURT 100. If payment is not received after seven days, the selected runner will be removed. To ensure that invitations are received, all registrants are asked to set their email spam filters to accept correspondence from [UltraSignup.com](https://ultrasignup.com).

The lottery will be conducted on August 19, 2023. Information regarding live streaming of the lottery will be published prior to that date.

## **Waitlist**

A separate Waitlist will be maintained for the following lottery categories:

1. HURT Veterans
2. Waitlisted but Never Selected
3. Everyone Else

After entrants are selected in all three lottery categories, the random drawing from the pool of weighted applications will continue, in order to create a waitlist for each category. A maximum of 50 names will be drawn for each category, ranked by the order in which they are drawn. *Names not drawn are still considered “waitlisted”, and further names will be drawn if the initial list is exhausted.* The three waitlists will be posted approximately three days after the lottery on [HURT100.com](https://hurt100.com).

When a runner withdraws from the start list, a runner will be taken from the waitlist for the lottery for which that runner was chosen. If a waitlist is empty, runners will be selected from the other two lists on an alternating basis, beginning with the “Everyone Else” list.

If an entry slot becomes available, the first runner on that waitlist will be notified by email with an invitation to participate. The recipient will also receive an invoice for online payment of the race entry fee and will have five days to accept and pay. If no reply is received, the invitation will be revoked, and the next available waitlisted runner will be notified.

The waitlists will be posted and updated on [HURT100.com](https://hurt100.com) together with the list of entrants from each lottery category. *No invitations to register will be issued to waitlisted applicants after December 31, 2023.*

## **Withdrawal**

Runners should immediately notify the [Director of Race Admission](#) of a decision to withdraw from the event. *Admitted runners who fail to show up on race day without notifying the [Director of Race Admission](#) will be banned from entering the HURT 100 for the next three years.*

## **Transfers / Deferment**

Accepted or waitlisted runners cannot transfer entries to other individuals. Entries and entry fees cannot be deferred or rolled over to a future year.

## **Cancellation of Event**

This event is held on public land, under the management of the [Department of Land and Natural Resources](#). As a result, the [race directorate](#) does not have the final say as to whether the event will be held, or the course altered. In the event of an emergency cancellation, no refunds will be given.

## **Refunds**

*HURT 100* runners are eligible for a refund of \$162.50 if both of the following conditions are met *on or before 11/15/2023*: a notice of intent to withdraw from the event is sent to the [Director of Race Admission](#) *and* a waitlisted runner accepts the vacated spot. After 11/15/2023, entry fees will not be refunded for any reason and under any circumstances.

# EVENT DETAILS

## Introduction

The HURT Trail 100-Mile Endurance Run, referred to hereafter as the “*HURT 100*”, is a very difficult event designed for the adventurous and well prepared ultrarunner. It is conducted on trails within the jurisdiction of the State of Hawai‘i [Department of Land and Natural Resources](#) (DLNR), Division of Forestry and Wildlife, [Nā Ala Hele](#) program. Nā Ala Hele has turned traces of pig trails through the rain forest into people-friendly, single-track paths. The event organizers are very grateful for the staff’s untiring year-round commitment to trail maintenance for all users and help in preparing for this annual event.

A detailed description of the course can be found at the [end of this document](#).

## Climate

### Temperature

Average Maximum for Honolulu in January – 80.0° Fahrenheit

Average Minimum for Honolulu in January – 65.8° Fahrenheit

Extreme Daily High for Honolulu in January – 88.0° Fahrenheit

Extreme Daily Low for Honolulu in January – 52.0° Fahrenheit

### Precipitation

Monthly Mean for Honolulu in January – 3.34 inches

One-Day Maximum for Honolulu in January – 6.40 inches

These measurements were gathered from a weather station at the Honolulu airport (HNL), and do not apply with precision to the rain forest. Participants should expect lower daytime highs and nighttime lows, especially on the exposed sections of Mānoa Cliff and Nu‘uanu ridge. Precipitation is higher in the rain forest than in the urban areas of Honolulu and can fall in huge quantities over a brief span of time.

Regardless of rain, high relative humidity should be expected.

## Illumination

All times are expressed in 24-hour format, pertaining to race weekend, and are listed in order of occurrence; dusk and dawn refer to “civil twilight” (sun six degrees below horizon). Times listed are for January 13, 2024.

- Dawn – 06:47
- Sunrise – 07:11
- Moonrise – 09:24 (Moon phase: just past dark of the moon, only 9.3% illumination )
- Sunset – 18:03
- Dusk – 18:32
- Moonset – 20:58

The dense canopy covering much of the course leads to effectively shorter daylight hours. Even in years with nearly a full moon, the moon will not provide much illumination through the canopy. For the HURT 100 in 2024, moonrise will be early in the morning and moon illumination will only be at 9.3%. Participants should anticipate needing artificial light for longer than indicated by the times listed above.

### **Altitude / Elevation Change**

Over the 100-mile course, the elevation ranges from 300 to 1900 feet. The total cumulative elevation gain is roughly 24,500 feet. For the technically inclined, the GPS sampling interval for this calculation was about 100 meters.

### **Terrain**

The *HURT 100* course consists almost exclusively of technical, single-track trail on surfaces that include roots, rocks, and soil in a wide range of conditions, from sun-baked clay to mud of varying depth. Sudden hairpin turns and steep inclines of up to approximately two miles in length are a common occurrence. Very few sections of the course can be run with a consistent stride for more than several hundred yards at a time.

There are a total of 20 stream crossings. Mānoa Stream and Nuʻuanu Stream are each crossed twice per lap at locations close to the Mānoa and Nuʻuanu Aid Stations, respectively.

### **Fauna**

Wild pigs roam the trails and are most active at sunrise and sunset. Although they tend to avoid humans, they are temperamental and have dangerous tusks. When encountering a pig, especially a sow with piglets, trail users should avoid sudden or aggressive movements.

Mosquitoes can be present in the wetter areas of the course alongside stream crossings and at some aid stations, especially when there is little air movement. Participants may want to pack appropriate clothing and/or repellent.

Bacteria (including leptospirosis) are prevalent in freshwater streams and ponds found in Hawai'i. Drinking stream water without proper treatment is not recommended. Runners should note that leptospirosis can enter the bloodstream through any open wound.

## Race Logistics

### Course Markings

Please see [Course Description](#) for details on course marking.

### Aid Stations

There are three aid stations spaced from 5.2 to 7.4 miles apart: Makiki (the Start / Finish, located at the Hawai'i Nature Center), Mānoa (located at Paradise Park), and Nu'uau. All aid stations will be stocked with bottled water, an electrolyte drink, and carbonated beverages. Hot and cold food will be available, with vegetarian and vegan options in each category. Food items will include the traditional fare that is provided at most 100-mile runs, as well as local variations of the standard theme. Runners will be responsible for their own gels, energy bars, electrolyte supplements, medications (e.g., anti-inflammatory products), personal hygiene products (e.g., sunscreen, lip balm), and typical first-aid items (e.g., bandages, blister treatment). Those with strict dietary requirements or special medical conditions are advised to pack needed items in personal drop bags.

*The HURT 100 is a cupless race. (Exceptions for hot beverages and for volunteers.)*

### Drop Bags

Runners may have personal supplies at any of the three aid stations. Each aid station will be visited five times, so attention to resource planning is important. Due to space limitations and to facilitate handling, the size of drop bags is limited to **12 inches by 12 inches by 18 inches**, as detailed in [Rules](#).

As aid stations close, race personnel will transfer drop bags from the peripheral aid stations (Mānoa, Nu'uau) back to the Halau Ku Mana parking lot at 2101 Makiki Heights Drive. (Bottom of the road to the Makiki Aid Station.) Participants are responsible for gathering their drop bags following the event *by 18:15 on Sunday, January 14*. Any items not collected by then will be donated, recycled, or discarded.

Runner bags will only be delivered back after the closing of each aid station, to the Halau Ku Mana parking at Makiki. If you finish or drop early, you're welcome to retrieve your bag from each individual aid station, in order to save you time waiting for final aid station closure. Please let the aid station volunteers

know you are taking your bag. Runners or crews picking up bags at Nu'uuanu may not stay at the aid station. Please just grab and go.

### **Pacers / Crews**

The *HURT 100* is a competitive race for some, a running event for others, but an independent challenge and personal test of fortitude for all. A pacer is a safety companion during the latter part of the event only, not a way to gain advantage over fellow runners. A similar sentiment applies to crews, which are also considered nonessential as ample and regular support is provided by aid-station personnel.

*Runners need to be able to carry necessary supplies and maintain forward progress independently, from start to finish.* Note: The ultrarunning community in Hawai'i is relatively small, and pacers may be hard to find locally. Runners are responsible for the conduct of their pacers, regardless of how they are acquired.

### **Awards**

Awards (belt buckles) for all 100-mile finishers will be given immediately at the time of race completion.

Selected finishers will be awarded a custom-made, custom-fitted HURT belt to complement their new buckle. Recipients will be announced at the HURT banquet. (Belts for other HURT finishers are available for purchase from [California Bohemian Leather](#).)

The first three finishers in each category will receive event-specific trophies at a ceremony during the [Post-Race Banquet](#). Runners unable to attend the banquet should note that awards will not be mailed and must be collected locally.

A prize of \$500.00 will be given for any new course record established in the *HURT 100*. The current records are 19:35 (men) and 24:06 (women).

### **Parking**

Makiki: Parking at the Makiki Aid Station (Start / Finish) is limited; carpooling and arranging rides are recommended. One parking pass will be issued to each runner, for one vehicle to park at Halau Ku Mana, which must always be displayed. Runners and crews should use the lower parking lot before the gate. We will once again try to obtain parking at the adjacent Halau Ku Mana School, but this may not be confirmed until just prior to the race. Participants may also park along Makiki Heights Drive but must have all tires off the roadway or risk being towed. Runner or crew vehicles are NOT permitted above the gate. The [DLNR](#) has advised race planners that only necessary traffic will be allowed to pass through

the front gate after hours (typically sunset to sunrise), as the park needs to be secured. On race morning prior to the start, a parking attendant will direct drivers.

Note: There are several private homes along the roadway leading to the Makiki Aid Station. Travel and noise (e.g., conversations, closing of car doors and trunks) should be kept to the absolute minimum, especially during nighttime and early morning hours. There is no parking above the gate by runners or crews.

Mānoa: The Mānoa aid station is located on the Paradise Park grounds. Paradise Park, including the parking lot, are private property. A \$7 parking fee (subject to change) applies for the duration of the event. Free street parking is available around the end of [Mānoa Road](#), 5 – 10 minutes by foot from the aid station. If parking on Mānoa Road, do not block neighborhood driveways. ***Due to traffic and parking congestion on the first loop, no crews are permitted at this aid station until after 10:45 a.m. on Saturday.***

Nuʻuanu: There is no access to the Nuʻuanu aid station. [Nuʻuanu Pali Drive](#) is a narrow road adjacent to the aid station that offers extremely limited parking. **Starting this year, pacers MAY NOT start at Nuʻuanu.** Pacers or crews showing up at Nuʻuanu could result in runner disqualification. Beginning this year, we may even be bussing in volunteers.

All Locations: Trailheads are notorious for vehicle break-ins. Participants are strongly encouraged to avoid leaving valuables in their cars. Note that vehicles must have all four wheels off the road (asphalt surface) to avoid ticketing or towing by the police.

## **Race Photography**

Race Management does not contract professional photographers for this event but will attempt, on a best-effort basis, to obtain volunteer support for this task from the local community. If available, official volunteer race photographer(s) will be named. Post-event, it is possible but not guaranteed that those photographers will offer photos for purchase. Runners should note that it may take some time to make the race photos available.

The best places to see a runner and capture photographs are near [aid stations](#). Those who venture onto the course are asked to exercise caution and respect the environment. Many spectators who take pictures share them through the [HURT 100 website](#) (use the contact form on our website to have photos posted).

## **Lodging**

For assistance with lodging, participants may contact the [Hawai'i Visitors and Convention Bureau - Hawai'i Tourism Authority](#).

## **Safety / Medical Concerns**

Participants have voluntarily entered an event which requires a significant amount of mental and physical preparation. In addition, the race involves inherent risks ranging from the known (e.g., terrain, 100-mile course) to the unknown (e.g., "acts of God"). Runners and pacers should ensure adequate medical coverage in the event of mishap during this event.

### **Medical Personnel**

Although event personnel will make all efforts to provide aid within their capabilities, medical staff may not be available to take care of participants. Each aid station is located within a 5-mile radius of a major medical center.

### **Cell Phone Coverage**

Cell phone service is available on parts of the course but can range erratically from adequate coverage to none at all. Quality and reception will also vary among cellular phone carriers. Carrying a whistle is recommended for both runners and pacers.

### **Accidents**

If a runner gets hurt on the trail, he or she should stay put, keep warm, and remember that this is a multiple-lap, out and back course. Other runners or the HURT Patrol will direct event personnel to the incident location or assist in another manner. Similarly, if a runner gets lost, he or she should stay on the trail and wait for assistance. Wandering aimlessly, especially at night, reduces the chance of being found.

### **Dehydration**

One of the most common medical problems for endurance athletes is dehydration. This is especially relevant for the *HURT 100* as conditions on the course can be hot and humid. Runners are solely responsible for monitoring their own hydration level; race officials will not be weighing participants. Runners should leave each aid station with a minimum of 32 ounces of water, with 64 ounces being highly recommended.



## **Hypothermia**

Hypothermia may pose a threat at night, especially if it has rained, as temperatures can drop below 60 degrees Fahrenheit. Sections of the course along ridges and cliffs, including Mānoa Cliff Trail and Nuʻuanu Trail, are extremely exposed and can be very windy and wet.

## **Road Crossings**

On each lap, runners must make two road crossings. One of them involves following a narrow road for approximately 150 yards. Runners must use extreme caution when running across or along roadways. Crossing roads safely is solely the responsibility of the runner.

## **Terrain**

Participants will be running on technical trails where footing is adequate at best. If it rains, which is common, there can be an abundance of mud. Attention to the terrain underfoot and directly ahead is critical in this event. Some trails are located adjacent to cliffs with extreme drop-offs.

There are two streams, each crossed twice per loop. One crossing is short and non-technical, involving wood planks not far from the Mānoa Aid Station. The other is technical and requires runners to cross Nuʻuanu Stream on scattered and slippery rocks, near the Nuʻuanu Aid Station. Runners may get wet feet when crossing this stream. If the water level is high, the course may be rerouted. Runners will be notified of any course changes at the Pre-Race Briefing.

## **Lighting**

As no part of the course (except for the aid stations) is lit, and very little moonlight penetrates the forest canopy, race participants will need artificial light at night. Runners (and pacers) are reminded that daylight hours are shorter in the forest than in the open. Participants should carry backup batteries and lights and keep extras in drop bags. *Aid stations are not stocked with batteries for runners to use.*

## **Hiking Poles**

Poles are permitted on the course. For safety reasons, those with poles should yield the trail to other runners.

**Headphones**

Use of any device that impairs the senses is discouraged for safety reasons. Runners wearing headphones are asked to remove them when near aid stations to facilitate communication with event personnel.

**Noise**

Use of bells and other devices emitting sound is prohibited out of respect for other trail users seeking a wilderness experience.

# RULES

## I. Introduction

*HURT 100* Rules are designed with the following goals in mind:

- A. The safety, enjoyment, and well-being of everyone involved in the race, including runners, pacers, crews, volunteers, neighbors, race personnel, spectators, and others using the trails (“the public”).
- B. The staging of a fair and sportsmanlike event that is solely based upon individual effort.

Failure to comply with rules and procedures may result in disqualification of Runner. Depending upon severity of the offense, Runner can be disqualified for this race and future HURT sponsored events. Additionally, the race directorate may refine, generate, or reinterpret a rule at any time if doing so is deemed necessary to promote our goals. At all times, the intent and spirit of the rules will govern how they are implemented and enforced by race officials (e.g., Race Directorate, HURT Patrol, Aid Station Captains). By attending this event as Runner, Pacer, or Crew, each participant acknowledges and agrees with this sentiment.

## II. All Participants

- A. Courteous behavior and sportsmanlike conduct are always expected.
- B. Sharing the trail: *HURT 100 participants do not have exclusive use of the trails*. These paths are well used by the public. Caution should be exercised when approaching casual hikers (and their pets). Runners should warn others of their approach and, when in doubt, yield.
- C. Use common sense when passing other trail users or runners. Yield to other trail users if it is safer for you to stop or pull off the trail to the side.
- D. *HURT 100* participants do not have exclusive use of public toilets or drinking fountains at the Makiki Aid Station. These should be used with care, keeping in mind that they are shared with hikers and the public.
- E. Mālama ‘āina (care for the land).
  - 1. The rain forest is fragile and subject to damage simply by being trod upon. Runners and pacers are expected to stay on the trail at all times.
  - 2. Littering on the course is grounds for immediate disqualification. Littering is contrary to land use ethics and affects HURT’s ability to hold future events. Note: Dropping waste twenty yards, or more, from any aid station is considered littering.

3. The *HURT 100* course lies within watershed areas that supply a significant amount of potable water for residents of O'ahu. Participants should use the restrooms available at Makiki (Start / Finish), and the portable toilets at all aid stations.
- F. Muling is not permitted. Runners must carry all of their supplies into, out of, and between aid stations, at all times.
- G. Runner's lighting system is to be used for personal illumination of the trail only. Pacer may not deploy lighting systems to illuminate the trail for Runner except temporarily in case of an emergency.
- H. Short roping of Runner, by tether or connected body parts, is not permitted. Runners must complete the course under their own power without being pulled, pushed, balanced, towed, carried, supported, or physically guided over the course.
- I. Stashing of supplies is not permitted *at any time or place* on the course. This includes leaving water bottles on out and back sections of the course, even during the event itself (a form of littering). Stashing supplies is considered littering and is grounds for immediate disqualification.
- J. Aid from Crew or Pacer may **ONLY** be given at official aid stations.
- K. Crew and Pacer may not retrieve bottles from Runner for filling *until within the confines of the aid station*, and the runner must be carrying bottles when leaving the confines of the aid station.
- L. Aid-station resources and supplies are intended for runners and pacers. In the unlikely event of a shortage, runners have priority.
- M. Smoking is not permitted on the trail or at aid stations. Smoking is strongly discouraged at any location where runners, pacers, crews, and race personnel congregate.
- N. Consumption of alcoholic beverages and illegal substances on any part of the course is prohibited.
- O. Dogs are not allowed anywhere on the course, and their presence is discouraged around aid stations for safety and sanitary reasons. Dogs brought to the event must be under control and leashed at all times.
- P. All participants must obey City and County of Honolulu regulations, with special attention to those that involve parking and driving.

### III. Runners

- A. ***Runner is responsible for knowing ALL rules and procedures.***
- B. Runner is responsible for the actions of their Pacer(s) and Crew. Any rule transgression by Runner, Pacer or Crew can be grounds for either immediate or post-run disqualification.
- C. Runner must pick up runner bag on Friday at the Pre-Race Briefing.
- D. Runner must check in on race morning prior to starting the race to receive a running bib and be an official participant.
- E. Drop Bags:

1. Runner's drop bag of personal supplies at any one aid station must not exceed the following dimensions: **12 inches high, 12 inches wide, and 18 inches long.**
  2. Drop bags are to be brought to the event start (Makiki) on Saturday morning starting at 04:45.
  3. In your runner bag you will find three pre-printed drop bag numbers. To be accepted, drop bags must be clearly identified with the appropriate pre-printed drop bag numbers for the following aid stations:
    - Mānoa,
    - Nuʻuanu,
    - Makiki (i.e., Start / Finish)
- F. Runner bib numbers must be worn on the front of your clothing and NOT be folded. This is to ensure they are visible and that runners are properly identified at aid stations.
- G. While accepting supplies on rare occasions from another runner is tolerated, multiple such instances may be interpreted as muling.
- H. *No course cutting.* Runner must follow the marked course at all times. If Runner departs from the official course, Runner must return to the point of departure on foot before continuing onward.
- I. Artificial systems devised to cool Runner (cooling vests or similar), are not allowed to be used or worn while forward progress is being made.
- J. If Runner undergoes an infusion of intramuscular / intravenous / subcutaneous fluids of any type (except for prescription medication) during the race, immediate disqualification will occur.
- K. Race officials reserve the right to remove runners from the course who are deemed incapable of continuing safely.
- L. **Runner must check in at every aid station** for reasons of safety and timekeeping / tracking. It is every runner's responsibility to make sure their time is logged in at each aid station.
- M. **Runner must check out of every aid station**, to ensure we know who is on the course and for how long.
- N. Runner exceeding one hour in an aid station must report it to the aid station captain.
- O. Runners dropping out during the event must inform a race official. If Runner retires without doing so and fails to show up at the next aid station, officials may notify Honolulu Fire Department Search and Rescue (SAR). Runner may be held responsible for the cost of a frivolous SAR operation.
- P. Cut-off times will be strictly enforced. Runner must not continue after exceeding a cut-off time. Race staff will make every attempt to shuttle Runner back to the Start / Finish (Makiki) if this occurs. Note: The official race time clock is managed by race timers and corresponds to satellite time.
- Q. The short boardwalk at Pauoa Flats (Roots) is not to be used by the Runner on any loop, and this area will be marked with blue tape. This boardwalk can become very slippery and hazardous.

#### IV. Pacers

- A. *Pacer must review and be familiar with ALL rules and procedures.*
- B. Pacer may start accompanying Runner after 60 miles or beginning at 17:00 on Saturday, whichever comes first.
- C. Pacer must start pacing duty only at the Mānoa or Makiki aid stations. **Beginning this year, no pacers may start at the Nuʻuanu aid station.**
- D. Only one pacer is allowed to accompany a runner at a time.
- E. Pacer must wear the bib provided whenever pacing, so they can be identified by race officials.
- F. Pacer may only receive aid at the three official aid stations.
- G. Pacer may assist Runner in the aid station but may not enter the checkpoint ahead of Runner or depart after Runner for this purpose.
- H. If Pacer falls out of visual distance from Runner for longer than dictated by the course, Runner may continue without Pacer, but Pacer must exit the course at the next aid station.
- I. Race officials reserve the right to remove pacers from the course who are deemed incapable of continuing safely.

#### V. Crews

- A. *Crew must review and be familiar with ALL rules and procedures.*
- B. Crew members may not consume supplies provided at aid stations, including food.
- C. Crew may only **park** in authorized areas.
- D. *Crew may only support Runner and Pacer within 100 yards of an aid station, and not on the course.*
- E. **On Saturday, crews are not allowed at the Mānoa Aid Station before 10:45 a.m., to avoid crowding.**
- F. **NO crews are allowed at the Nuʻuanu Aid Station, at any time.**

#### VI. Film Crews and Video Projects

- A. As the HURT 100 has grown in popularity, so have the number of requests to document and film our event and runners. To maintain some control over the number of film crews, these requests must be approved in advance of the race.
- B. Unless approved in advance, the use of HURT logos or branding may not be used in any film or video project. Unless approved in advance, the likeness of any runner, crew, or volunteer may not be used in any film or video project without their written consent.
- C. Videos of the runner being followed, their own crew, pacers and family are, of course, permitted.

# PERSONNEL / CONTACT INFO / ROLES

## Event Personnel

### Race Directorate

Executive Director	PJ Salmonson
Executive Director	Carl Gammon
Race Director, Race Day	<a href="#">Jeff Huff</a>
Race Directorate	Carl Gammon, Freddy Halmes, Marian Yasuda
Director of Race Admissions	<a href="#">Carl Gammon</a>
Start / Finish Line Coordinator	Carl Gammon
Makiki Aid Station Captains	Steve Villiger, Rosie Warfield
Nu'uuanu Aid Station Captain	Freddy Halmes
Mānoa Aid Station Captains	Marian Yasuda, Neal Yasuda
Roving Aid Station (Infrastructure)	Scot Kuwaye, Rod Huddleston
Trail Maintenance Manager	Freddy Halmes
Trail Marking Coordinators	Freddy Halmes, Mauricio Puerto
Mandatory Runner Registration	Melanie Decker Koehl
Medical Advisors	Sarah McIntosh, Dr. Jim Budde
Volunteer Coordinator	Marian Yasuda
HURT Patrol Coordinator	Jeff Fong
Race Awards	PJ Salmonson, Rex Vlcek
Donor Liaisons	Jacki Doppelmayer, Sandi Kanemori
Race Bibs/Labels and Course Signage	Kana Yamamoto
Post-Race Banquet	Jen McVeay
Webmaster	Augusto Decastro <a href="http://hurt100.com">hurt100.com</a>

Race Day Webcast Operator

[UltraSignup.com](http://UltraSignup.com)

Race Registrar

[HURT100.com](http://HURT100.com)

Race Book Editor

Carl Gammon

Race Photographer

Augusto Decastro

Advisory Committee

Vernon Char, Kelley Hupp, Matt Goda

## **Contact Information**

General Questions

[Contact Us](#)

Jeff Huff

[Email Jeff](#)

Carl Gammon

[Email Carl](#)

Marian Yasuda

[Email Marian](#)

PJ Salmonson

[Email PJ](#)

## **Role Definitions**

### **HURT Patrol**

Patrols will be on the course to monitor progress of runners, assist during emergency situations, assess course conditions, refresh course markings, and prevent / report rules violations. Members of the HURT Patrol serve as extensions of the race directorate. As such, they are authorized to warn runners, pacers, and crews of any violations and advise them to correct transgressions.

### **Aid Station Captain**

Aid Station Captains plan and organize aid stations, as well as supervise their setup and disassembly. During the event, they direct volunteers and oversee operations related to runner support and safety. Aid Station Captains serve as an extension of the race directorate. As such, they are authorized to warn runners, pacers, and crews of any violations and advise them to correct transgressions.



# EVENT SCHEDULE

Date	Time	HURT 100 Event	Location
Friday, January 12	TBD	Mandatory Pre-Race Briefing	Location TBD
Saturday, January 13	04:45	Mandatory Runner Check-in	Makiki
“	04:45	Drop Bag Collection	“
“	06:00	Race Start	“
Sunday, January 14	18:00	Race End	“
Monday, January 15	17:00 – 21:00	Post-Race Banquet	Location TBD

**Mandatory Pre-Race Briefing:** The Pre-Race Briefing will once again be in person. The location is yet to be determined, and will be announced prior to race weekend. Distribution of information including logistics / course updates, safety, and other topics, in addition to an optional question and answer session. In addition, runner bags will be distributed at the meeting.

**Mandatory Runner Check-in:** Runners need to check in prior to the start of the race in order to receive the runner bib and be officially recognized. Times will only be kept for official runners.

**Drop Bag Collection:** The official and only occasion that drop bags are collected for distribution to the Mānoa and Nu‘uanu aid stations occurs at the Makiki aid station immediately after Runner Check-in.

**Post-Race Banquet:** We are looking forward to another fun filled evening of race awards, roasting of runners, and mingling with friends old and new. HURT will publish banquet and ticket information as plans are confirmed. Once plans are announced, early purchase is strongly recommended as we tend to quickly fill to capacity.

# CUT-OFF TIMES / AID STATION CLOSURES

Runners are allotted 36 hours to finish the 100-mile event, from 06:00 on Saturday, January 13 to 18:00 on Sunday, January 14. Cut-off times pertain to the fifth lap (Miles 80-100). Runners must *check out of* each aid station by the time listed in the chart below or drop out of the race. Checked-out runners returning to aid stations after the listed times must exit the race or face disqualification. In general, aid stations close fifteen minutes after the cut-off times.

Date	Time	Event	Location	Mile "Marker"
Saturday, January 13	06:00	Course Start / Opening	Makiki	0
Sunday, January 14	11:00	Cut-off #1	Makiki	80
"	13:30	Cut-off #2	Mānoa	87
"	13:45	Mānoa Aid Station Closure	"	-
"	15:30	Cut-off #3	Nuʻuanu	92.5
"	15:45	Nuʻuanu Aid Station Closure	"	-
"	18:00	Course Finish / Closure	Makiki	100
"	18:15	Makiki Aid Station Closure	"	-

# COURSE

The *HURT 100* course consists of five identical 20-mile laps on trails connecting the Mānoa, Makiki, and Nuʻuanu Valleys. A leg of this lap is defined as the connection between any two aid stations.

The route is marked with directional signs and surveyor's tape in three different colors (white, lime green, and orange), one for each of the three legs. On out-and-back sections of the course, runners will encounter ribbons in two different colors. Blue tape indicates shortcuts and trails that are not part of the course. At night, glow sticks may be placed at critical turns.

A brief description of the ordered sequence of trails that make up the *HURT 100* course is given in the following table; prominent natural or man-made landmarks are mentioned as well.

At any time, the course may be altered at the race directorate's discretion.

**Trail Sequence Table**

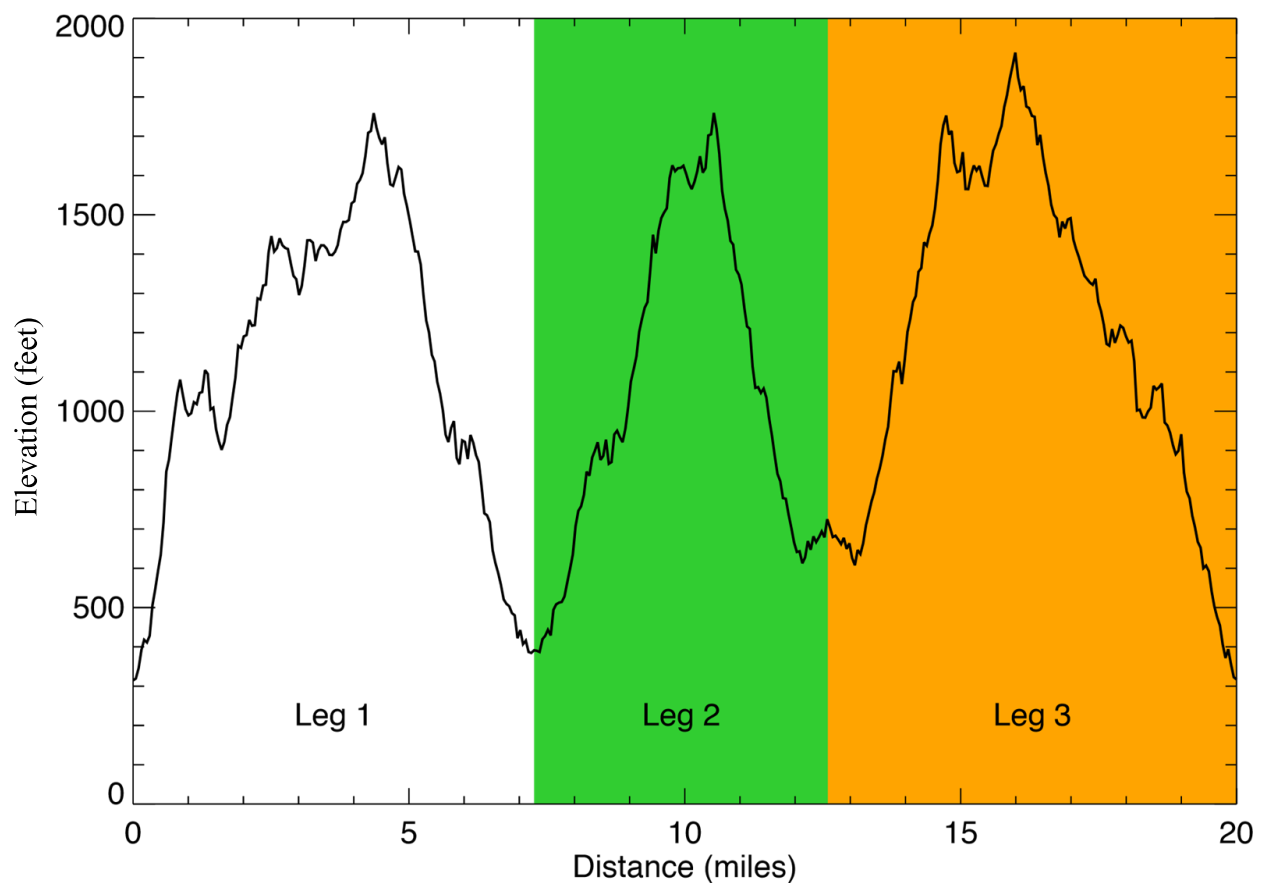
<b>Leg #1</b> <b>White Tape</b> <b>Makiki to Mānoa</b>	<b>Leg #2</b> <b>Green Tape</b> <b>Mānoa to Nuʻuanu</b>	<b>Leg #3</b> <b>Orange Tape</b> <b>Nuʻuanu to Makiki</b>
Makiki Aid Station	Mānoa Aid Station	Nuʻuanu Aid Station
(Across bridge onto) Maunalaha Trail	(Straight on short, paved section to) Mānoa Falls Trail	(Straight and across) Nuʻuanu Stream
(Straight and down) Makiki Valley Trail	(Left and up) ʻAihualama Trail [Mānoa Falls just ahead]	(Right onto) Judd Trail
(Straight past Kanealole Trail junction / then right onto) Nahuina Trail	(Left onto) Pauoa Flats Trail	(Right and up) Nuʻuanu Trail [Bien's Bench is at the top of Nuʻuanu ridge]
(Across road and right, along short section of) Tantalus Drive	(Right onto) Nuʻuanu Trail [Bien's Bench is at the top of Nuʻuanu ridge]	(Right onto) Pauoa Flats Trail
(Left onto) Kalāwahine Trail	(Left onto) Judd Trail	(Straight and up, onto) Mānoa Cliff Trail [through two gates]
(Right and up) Mānoa Cliff Trail	(Left and across) Nuʻuanu Stream	(Straight across Round Top Drive onto) Moleka Trail
(Left onto) Pauoa Flats Trail	(Straight to) Nuʻuanu Aid Station	(Right onto) Makiki Valley Trail (then right again to continue on) Makiki Valley Trail
(Right onto) ʻAihualama Trail		(Left and down) Kanealole Trail
(Right and down) Mānoa Falls Trail [Mānoa Falls just to the left]		(Right and down) Maunalaha Trail
(Straight on short, paved section to) Mānoa Aid Station		(Across bridge to) Makiki Aid Station

## Course Map

An overview of the *HURT 100* course can be found on the following pages, with the outline of the full course and then details of each of the three legs. See the Useful Information section of the [HURT100.com](http://HURT100.com) website for the electronic versions, including geo-referenced pdf (which allows seeing real-time position via an app on smart phones) and GPX (for some fitness watches).

Runners should print the course map and carry it during the event. Course maps are not provided.

The elevation profile for one lap of the HURT 100 course is shown below.



Leg 1: Makiki to Mānoa

Leg 2: Mānoa to Nuʻuanu

Leg 3: Nuʻuanu to Makiki





Leg 1: White  
Leg 2: Green  
Leg 3: Orange

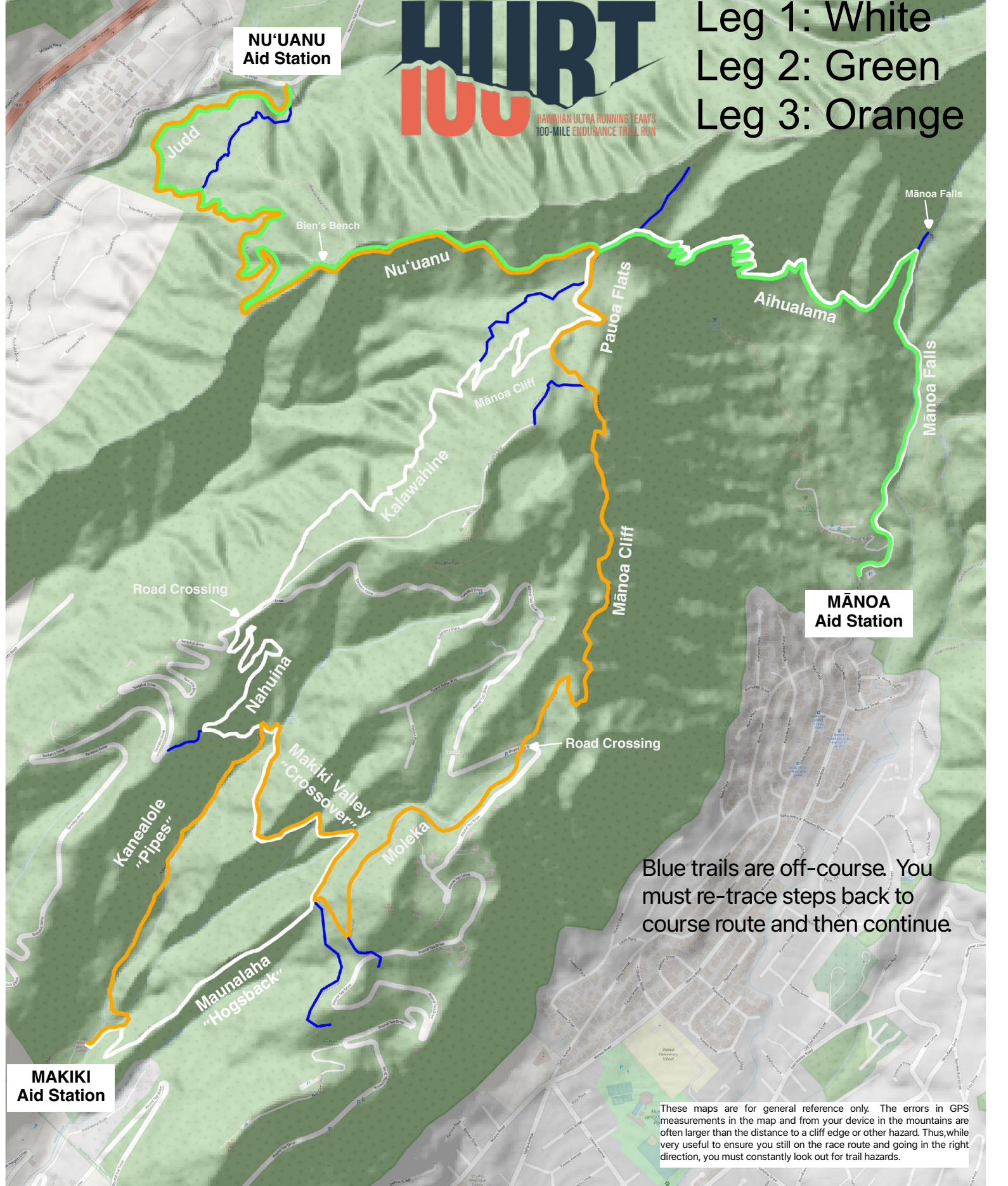
**NU'UANU**  
Aid Station

**MĀNOA**  
Aid Station

**MAKIKI**  
Aid Station

Blue trails are off-course. You must re-trace steps back to course route and then continue.

These maps are for general reference only. The errors in GPS measurements in the map and from your device in the mountains are often larger than the distance to a cliff edge or other hazard. Thus, while very useful to ensure you still on the race route and going in the right direction, you must constantly look out for trail hazards.

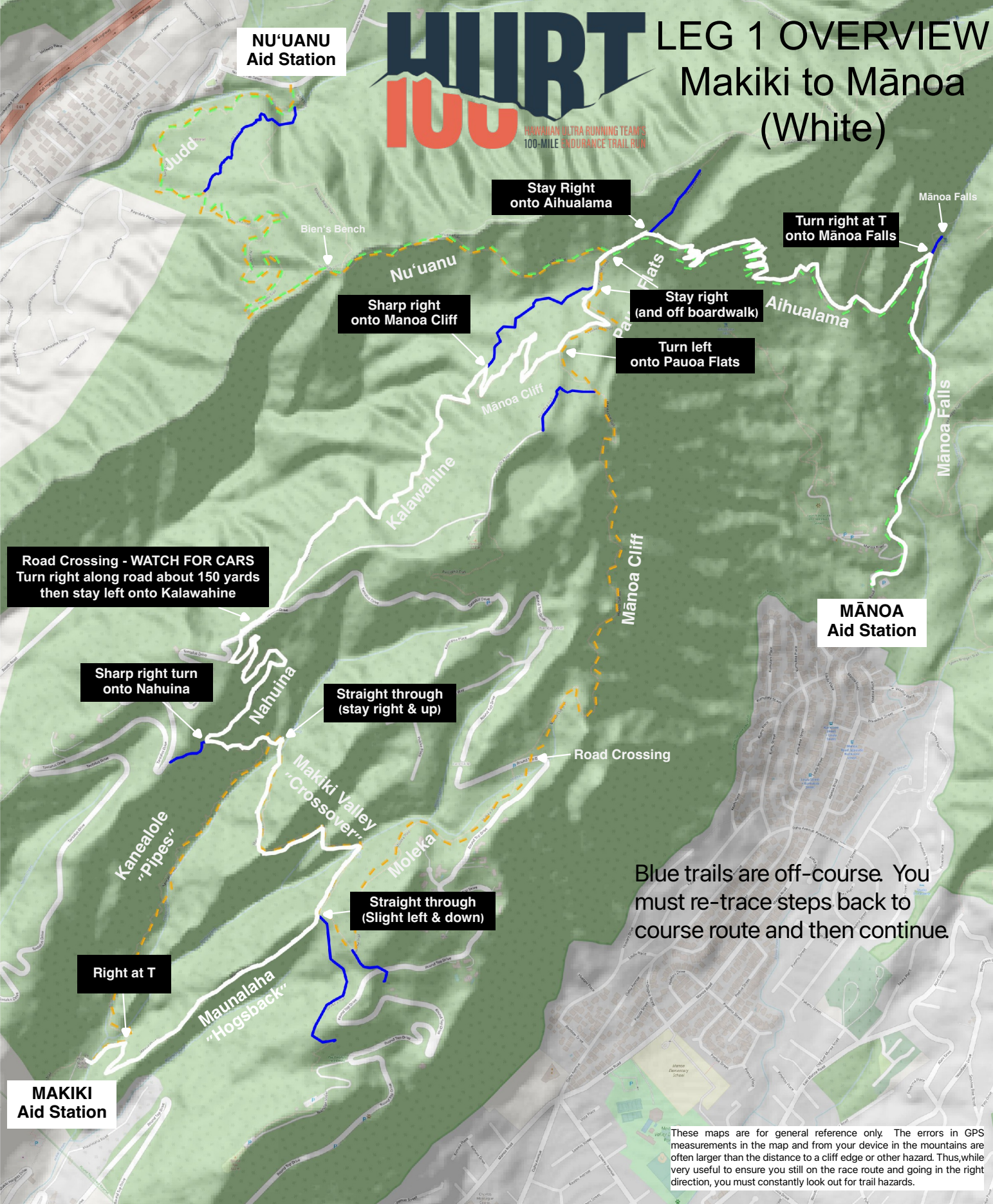






# LEG 1 OVERVIEW

## Makiki to Mānoa (White)



**NU'UANU**  
Aid Station

Stay Right  
onto Aihualama

Turn right at T  
onto Mānoa Falls

Sharp right  
onto Manoa Cliff

Stay right  
(and off boardwalk)

Turn left  
onto Pauoa Flats

Road Crossing - WATCH FOR CARS  
Turn right along road about 150 yards  
then stay left onto Kalawahine

**MĀNOA**  
Aid Station

Sharp right turn  
onto Nahuina

Straight through  
(stay right & up)

Road Crossing

Kanealole  
"Pipes"

Straight through  
(Slight left & down)

Right at T

Maunalahua  
"Hogsback"

**MAKIKI**  
Aid Station

Blue trails are off-course. You  
must re-trace steps back to  
course route and then continue.

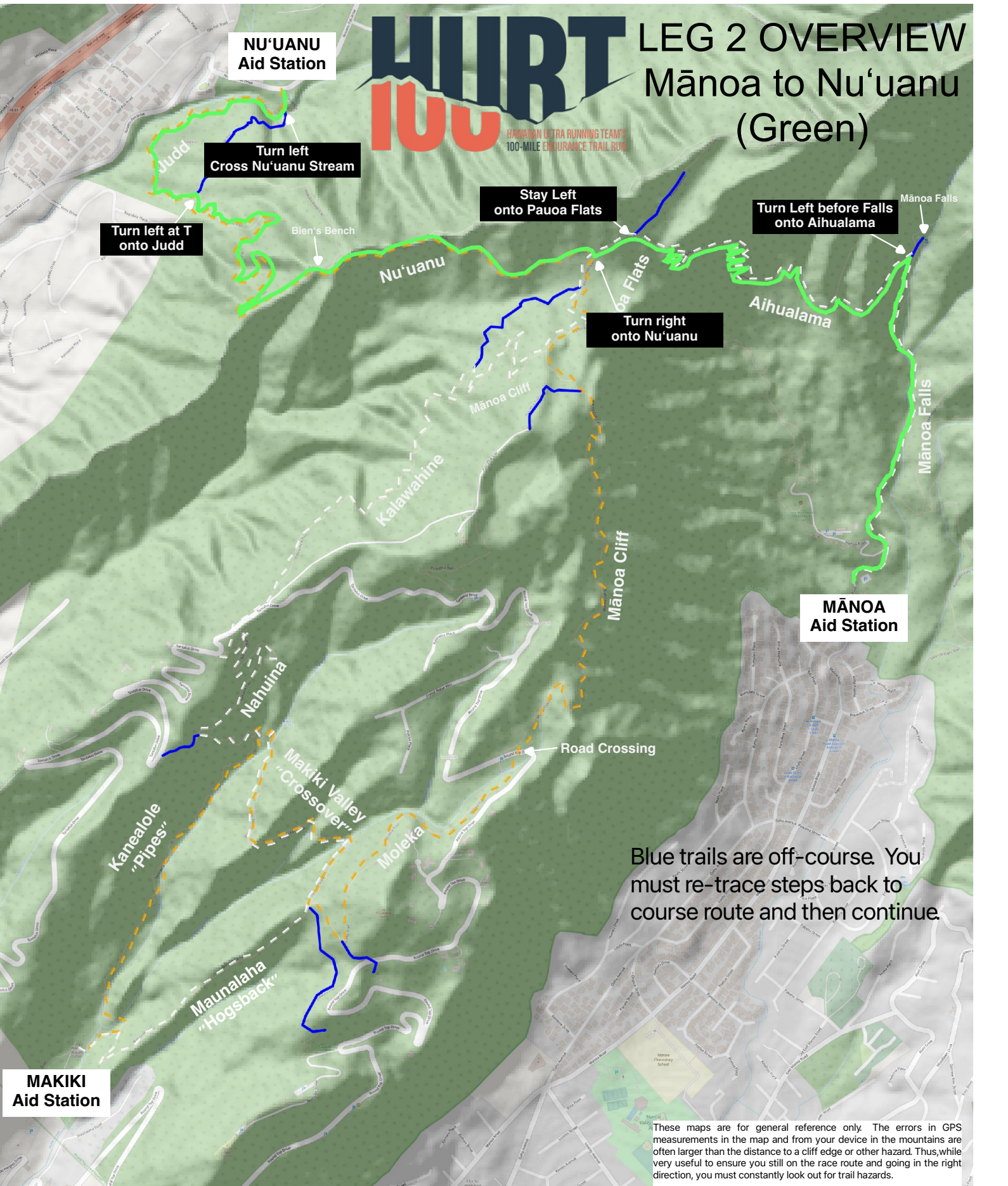
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# LEG 2 OVERVIEW

## Mānoa to Nu'uanu (Green)



**NU'UANU**  
Aid Station

Turn left at T  
onto Judd

Turn left  
Cross Nu'uanu Stream

Stay Left  
onto Pauoa Flats

Turn Left before Falls  
onto Aihualama

Turn right  
onto Nu'uanu

**MĀNOA**  
Aid Station

Road Crossing

Blue trails are off-course. You must re-trace steps back to course route and then continue.

**MAKIKI**  
Aid Station

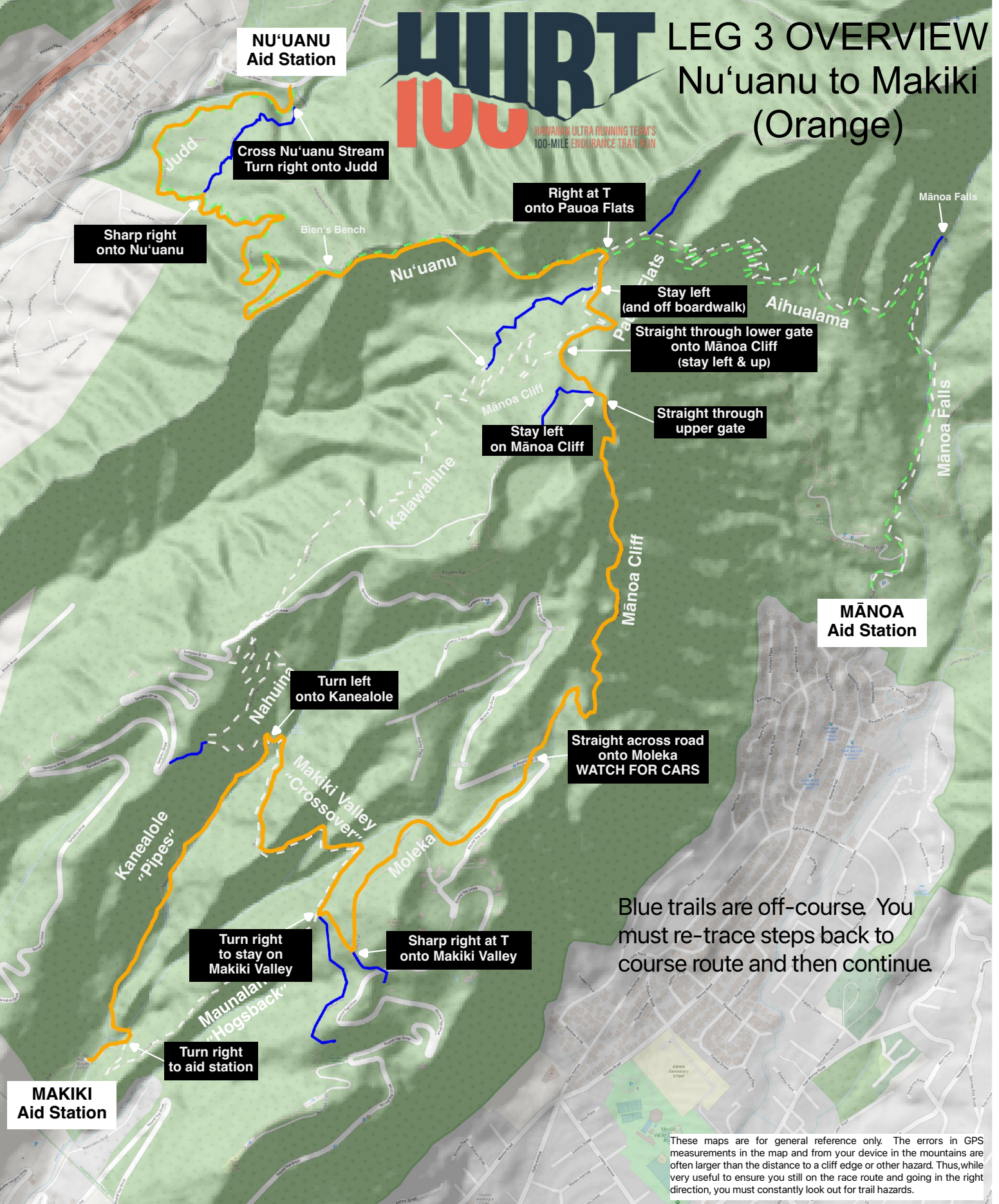
These maps are for general reference only. The errors in GPS measurements in the map and from your device in the mountains are often larger than the distance to a cliff edge or other hazard. Thus, while very useful to ensure you still on the race route and going in the right direction, you must constantly look out for trail hazards.





# LEG 3 OVERVIEW

## Nu'uuanu to Makiki (Orange)



Blue trails are off-course. You must re-trace steps back to course route and then continue.

These maps are for general reference only. The errors in GPS measurements in the map and from your device in the mountains are often larger than the distance to a cliff edge or other hazard. Thus, while very useful to ensure you still on the race route and going in the right direction, you must constantly look out for trail hazards.