

The Book of HURT



A.D. 2021

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AT A GLANCE

Date / Location

- Saturday, January 16, 2021 (06:00) – Sunday, January 17, 2021 (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 rain forest.
- 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

07/25/2020	Start of registration period
08/06/2020	End of registration period
08/15/2020	HURT Lottery
08/18/2020	Entrants and wait list posted online
11/12/2020	Deadline for event withdrawal with refund
11/15/2020	Deadline to submit Trail Work form
12/31/2020	End of wait list invitations
01/01/2021	Deadline for banquet ticket refunds
01/05/2021	Announcement of runner bib numbers
01/15/2021	Pre-race briefing
01/16/2021	Start of race
01/17/2021	End of race
01/18/2021	Post-race banquet

RACE ENTRY

HURT History

The HURT 100 was built on our goal of promoting trail running to the residents of Hawaii, allowing those runners to achieve a qualifying standard for mainland and international races, as well as inviting our mainland and international friends to enjoy our trails.

Sign-up

This event is open to participants who are at least 18 years of age. Registration will open on July 25, 2020 and will close at midnight (HST) on August 6, 2020. All interested runners must complete the race application and submit payment via credit card at [UltraSignup.com](https://ultrasignup.com). Upon submitting an application, the electronic acknowledgement of receipt provided by [UltraSignup.com](https://ultrasignup.com) ensures the applicant's inclusion in the lottery; *no further confirmation is needed or provided by [UltraSignup.com](https://ultrasignup.com) or the [race directorate](#).*

After the lottery is conducted on August 15, 2020 and runners are chosen, the credit card will be charged. 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 respective candidate is replaced by the first wait-listed runner and moved to the end of the wait list.*

Trail Work Requirement

THE REQUIREMENT FOR EIGHT HOURS OF VOLUNTEER TRAIL MAINTENANCE IS WAIVED FOR THE 2021 HURT 100.

~~Entry to the HURT 100 requires eight hours of volunteer trail maintenance each year you enter. Volunteering at an ultrarunning event, or pacing/crowing during an event, DOES NOT fulfill the trail work requirement. Trail work for the 2021 HURT 100 must be completed between September 1, 2019 and November 15, 2020. Full details of the requirement are on the Trail Work form, found on www.hurt100.com~~

~~Entrants and wait-listed runners not submitting verified trail work forms by the deadline will be removed from the event or wait list. Refunds for removed runners will be in keeping with the Refund section below. If an entrant is removed for not completing the trail work requirement, a wait-listed runner who has completed the trail work requirement will be selected, from the appropriate lottery category.~~

~~All runners entered are encouraged to complete their trail work as soon as possible. If not selected for the lottery, you may potentially be selected off the wait list. Trail work forms should be submitted to trailwork@hurt100.com~~

Entry Fee

The entry fee for the *HURT 100* (2021) is \$300 (USD).

Qualifying Event (NEW – Please Read)

THE REQUIREMENT FOR A QUALIFYING EVENT IS WAIVED FOR THE 2021 HURT 100.

~~Beginning with the 2021 application process, HURT is implementing the requirement of a qualifying event of a minimum of 50 miles. This event must have been completed within the two years prior to the opening of registration, from July 25, 2018 to July 24, 2020. It is the responsibility of the applicant to list their qualifying event at the time of application. Events that do not have results listed on [UltraSignup.com](https://ultrasignup.com) will be manually verified.~~

Runner Selection – HURT 100 (New – Please Read)

As we continue to grow in popularity, it is apparent that HURT must adapt to the changing landscape for the ultimate ultrarunning experience. To meet the needs of our community, our running veterans, those wait listed from previous HURT events, HURT wannabees, and our State and County partners, we have developed a new selection process for entry into the HURT 100.

Beginning with the HURT 100 in 2021, we will have three lottery categories:

1. HURT Veterans – applicants with **three** or more HURT finishes
2. Wait Listed/Never Selected; Never HURTERS – applicants who have applied to HURT within the last three years, were wait listed in any or all three years, were never on the starting list of runners, and who have never finished the HURT 100 mile
3. Everyone Else – applicants who do **not** fit in the previous two categories – for instance:
 - a. Applicant never applied for HURT before
 - b. Applicant has finished HURT 100 once or twice
 - c. Applicant has applied to run HURT more than three years ago
 - d. Applicant has run HURT in the last three years but never finished

The initial entrant list will include 136 runners, with a goal of starting 125 runners, our permitted limit. HURT has developed the following selection process for the initial 136 entrants, to reflect the HURT goal of making the selection process more transparent to all.

Reserved Slots

Beginning in 2021, HURT has reserved up to 18 of the 136 slots for HURT use:

1. HURT immediate previous year top 3 Male and top 3 Female finishers: Six slots.
2. HURT Board Discretion: Ten slots. HURT can use at any time, for any reason that HURT feels can add to the event.
3. Peacock Challenge 55: Two slots awarded (one Male, one Female) to finishers on the HURT 100 wait list, with trail work completed. Certification of trail work must be submitted prior to 10/10/20.

CATEGORY	AVAILABLE SLOTS	CADENCE OF PULL
HURT Board Discretion	10	Any time
Previous year top 3 M/F	6	Any time
Peacock Challenge 55	2	After Lottery
TOTALS	18	

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 e-mail from UltraSignup.com with an invitation to participate. The recipient has three days to accept, in which case the credit card on file will be billed and the stored registration activated.

Lottery Process

After the HURT reserved 18 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. 50 Wait Listed/Never Selected, Never HURTERS
3. 50 Everyone Else

CATEGORY	AVAILABLE SLOTS	CADENCE OF PULL
HURT veterans	18	First Pull
Wait Listed/Never Selected; Never HURTERS	50	Second Pull
Everyone else	50	Third Pull
TOTALS	118	

Kukui Nut Assignment Process

The HURT 100 conducts a weighted lottery. Each entrant may receive additional kukui nuts, which are additional “tickets” in the lottery drawing and increase each entrant’s odds of being selected. Kukui nuts are awarded as follows:

- Each qualifying applicant receives one kukui nut for applying
- Applicant who was wait listed in the three previous years and **has finished** HURT receives one kukui nut for each year on the wait list.
- Applicant who was wait listed in the three previous years and **has never finished** HURT receives two kukui nuts for each year on the wait list.
- Applicant receives one kukui nut for each HURT 100 finish for the five previous years
- Applicants that completed trail work for HURT 2020 and were not selected in the HURT 2020 lottery will receive two kukui nuts for that trail work
- Applicant providing proof of trail work for HURT 2021 **prior** to 7/15/2020 will receive one kukui nut
- 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 are Hawaii residents will receive one kukui nut

Lottery Categories

1. **Veterans** – 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 for the five previous years. If 18 veteran slots are not taken, remaining slots will be rolled into “Everyone Else”.
2. **Wait Listed/Never Selected; Never HURTERS** – up to 50 slots will be allocated to this lottery, which is for those who have been wait listed from one to three previous years and not finished HURT 100. Each applicant will be given two kukui nuts for trail work performed for HURT 2020 and two kukui nuts for each wait listed year in a 3-year rolling window.
3. **Everyone Else** – 50 slots will be allocated to this lottery, which is for anyone **not** in any of the previous two lotteries.

Conduct of the Lottery

Board members will tabulate the number of kukui nuts allotted to each entrant, based on 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. Board members and independent observers calculate the statistical distribution of selection given the number of kukui nuts.

The lottery will be conducted on August 15, 2020. Information on live following of the lottery will be published prior to that date.

Wait List

A separate Wait List will be maintained for the following lotteries:

1. HURT Veterans
2. Wait Listed/Never Selected, Never HURTERS
3. Everyone Else

After the initial entrants are selected in lottery category, the random drawing from the pool of weighted applications will continue, in order to create a wait list for that category. Names will be ranked by the order in which they were drawn. The three wait lists will be posted approximately three days following the lottery.

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

If an entry slot becomes available, the first runner on that wait list will be notified by e-mail from UltraSignup.com with an invitation to participate. The recipient of an invitation has three days to accept, in which case the credit card on file will be billed and the stored registration activated. If no reply is received, the invitation will be revoked, and the next available wait-listed runner will be notified by means of the described process. Runners selected from the wait list must complete the Trail Work requirement by 11/15/2020. To ensure that invitations are received as intended, all registrants are asked to set their e-mail spam filters to accept correspondence from UltraSignup.com.

The wait lists will be posted and updated on UltraSignup.com together with the list of entrants from each lottery. *No invitations to register will be issued to wait-listed applicants after December 31, 2020.*

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 wait-listed 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 or not 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 \$150 if both of the following conditions are met *on or before 11/12/2020*: a notice of intent to withdraw from the event is sent to the [Director of Race Admission](#) and a wait-listed runner accepts the vacated spot. After 11/13/2020, entry fees will not be refunded for any reason and under any circumstances.

In addition, *HURT 100* runners not submitting a verified trail work form by 11/15/2020 will be removed from the race and any wait list, and the slot offered to a wait-listed runner with trail work form submitted. If a wait-listed runner accepts the spot, \$150 will be refunded.

Refunds for post-race banquet tickets may be requested before January 1, 2021 by notifying the [Race Manager](#).

EVENT DETAILS

Introduction

The H.U.R.T. 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, pertain 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 16, 2021.

- Dawn – 06:47
- Sunrise – 07:11
- Moonrise – 11:14 (moon phase: waning, ~34% illuminated)
- Sunset – 18:12
- Dusk – 18:36
- Moonset – 23:33

The dense canopy covering much of the course leads to effectively shorter daylight hours. The moon will not provide much illumination for this year’s race. 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 is total of twenty [stream crossings](#). Mānoa Stream and Nu‘uanu Stream are each crossed twice per lap at locations close to the [Paradise Park and Nu‘uanu 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 moister 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 repellant.

Bacteria (including leptospirosis) are prevalent in freshwater streams and ponds found in Hawai'i. Drinking stream water without proper treatment is not recommended. Bacteria can also enter through broken skin.

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: Hawai'i Nature Center (hereafter "[Nature Center](#)"), [Paradise Park](#), and [Nu'uuanu](#). All aid stations will be stocked with bottled water, an electrolyte drink, and carbonated beverages. Hot and cold food will be available, with vegetarian options in each category. Food items will include the traditional fare that is provided at most 100-mile runs, as well as a local variation 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.

Beginning in 2020, the HURT 100 became 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, as detailed in [Rules](#).

Toward the end of the event, as aid stations close, race personnel will transfer drop bags from the peripheral aid stations ([Paradise Park, Nu'uuanu](#)) back to the [Nature Center](#) (Start / Finish). Bags of runners who dropped out may be transferred back earlier. Participants are responsible for gathering their drop bags following the event *by 18:15 on Sunday, January 19*. Any items not collected by then will be donated, recycled, or discarded.

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 the latter are acquired.

Awards

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

Four to five 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 of each gender 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.

The Aleca and Tonto Award, sponsored by Monica Scholz and Philip McColl: A prize of \$250.00 will be awarded to the fastest male and female finisher in their first 100-mile event.

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

Parking

Nature Center: Parking at the Nature Center (Start / Finish) and environs is limited; carpooling and arranging rides are recommended. One parking pass will be issued to each runner, which should 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 the Makiki Heights Drive, but must have all tires off the roadway, or risk being towed. Runner or crew vehicles are only permitted above the gate for short periods, but must display a valid parking pass. 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 day, a parking attendant will direct drivers prior to the start. Note: There are several private homes along the roadway leading to the Nature Center. 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.

Paradise Park: The Paradise Park grounds, including the parking lot, are private property. A \$5 parking fee (subject to change) applies per day. Free street parking is available around the end of [Mānoa Road](#), 5 – 10 minutes by foot from the aid station. ***Due to traffic and parking congestion on the first loop, no crews are permitted at this aid station until after 10:45 AM on Saturday.***

Nu'uaniu: There is no crew access to the Nu'uaniu aid station. [Nu'uaniu Pali Drive](#) is a narrow road adjacent to the aid station that offers extremely limited parking, available only to volunteers with special permits. Pacers starting at Nu'uaniu should be dropped off, or take Uber, Lyft, or taxi. Crews showing up at Nu'uaniu could result in runner disqualification.

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. When available, a [race](#)

[photographer](#) will be named. 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](#) (contact the webmaster through the link provided on the site 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 will 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. 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. Each runner is solely responsible for monitoring his / her 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 [Nu'uanu Trail](#), are extremely exposed and can be very windy and wet.

Road Crossings

On each lap, runners have to make [two road crossings](#). One of them involves following a narrow road for approximately 100 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.

Of the two [stream crossings](#), one is short and non-technical, involving wood planks not far from the [Paradise Park Aid Station](#). The other is technical, and requires runners to cross [Nu'uanu Stream](#) on scattered and slippery rocks, near the [Nu'uanu 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 discouraged 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 goals A and B. 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 expected at all times.
- 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. *HURT 100* participants do not have exclusive use of public toilets or drinking fountains at the [Nature Center](#). These should be used with care, keeping in mind that they are shared with hikers and the public.
- D. 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 (including aid-station cups) 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 the Nature Center (Start / Finish), and the portable toilets at Paradise Park and Nu'uuanu.
- E. Muling is not permitted. Runner must carry all his or her supplies between aid stations, at all times.
 - F. 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.
 - G. Short-roping of Runner, by tether or connected body parts, is not permitted. Runner must complete the course under his or her own power without being pulled, pushed, balanced, towed, carried, supported, or physically guided over the course.
 - H. 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). Stashed supplies will be removed by the HURT Patrol.
 - I. Aid from Crew or Pacer may ONLY be given at official [aid stations](#).
 - J. Crew and Pacer may not retrieve bottles from Runner for filling *until within the confines of the aid station*.
 - K. Aid-station resources and supplies are intended for runners and pacers. In the unlikely event of a shortage, runners have priority.
 - L. 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.
 - M. Consumption of alcoholic beverages and illegal substances on any part of the course is prohibited.
 - N. 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.
 - O. 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 his / her Pacer(s) and Crew. Any rule transgression by Runner or associated Pacer and Crew can be grounds for either immediate or post-run disqualification.

- C. Runner must pick up run number and bag on Friday at the [Mandatory Runner Registration](#).
- D. Runner must [check in](#) on race morning prior to starting the race in order to be an official participant.
- E. [Drop Bags](#)
1. Runner's collection of personal supplies at any one aid station must not exceed the following dimensions: *18" high, 18" wide, and 24" long*.
 2. Drop bags are to be brought to the event start ([Nature Center](#)) on Saturday morning at 04:45.
 3. *In order to be accepted, bags must be clearly marked with three items on a waterproof label.*
 - Location: Paradise Park, Nu'uuanu, or Nature Center (i.e., Start / Finish)
 - Runner name
 - Runner bib number
- F. Runner bib numbers must be worn on the front 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 exceeding one hour in an aid station must report it to the timer.
- N. 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) specialists. Runner may be held responsible for the cost of a frivolous SAR operation.
- O. [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 ([Nature Center](#)) if

this occurs. Note: The official race time clock is managed by race timers and corresponds to satellite time.

- P. 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.

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 at one of the three [aid stations](#).
- D. Pacer will not be assigned a bib number and will not be tracked.
- E. Only one pacer is allowed to accompany a runner at a time.
- 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 on 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 [Paradise Park Aid Station](#) before 10:45, to avoid crowding.**
- F. **NO crews are allowed at the Nu'uuanu Aid Station, at any time.**

PERSONNEL / CONTACT INFO / ROLES

Event Personnel

Race Directorate

Executive Director	John Salmonson
Executive Director	PJ Salmonson
Race Directorate, Race Day	Jeff Huff
Race Directorate	Carl Gammon, Freddy Halmes, Stan Jensen, Marian Yasuda
Director of Race Admissions	Carl Gammon
Start / Finish Line Coordinators	John Salmonson, Stan Jensen Jennifer-Anne Meneray
Nature Center Aid Station Captain	Benita Shults
Nu'unu Aid Station Captains	Freddy Halmes, Heather McCafferty Joani McLaughlin
Paradise Park Aid Station Captains	Marian Yasuda, Neal Yasuda
Trail Maintenance Manager	Freddy Halmes
Trail Marking Coordinators	Freddy Halmes, Mauricio Puerto
Medical Advisor	Jim Budde
Volunteer Coordinator	PJ Salmonson
Patrol Coordinator	Steve Villiger
Awards Committee	PJ Salmonson
Webmaster	Augusto Decastro hurt100.com
Race Day Webcast Operator	Mark Gilligan ultrasignup.com
Race Registrar	Mark Gilligan ultrasignup.com

Race Book Editors

Carl Gammon, John Salmonson

Race Photographer

Augusto Decastro

Pre-Race Packet Pick-up / Donor Liaison

Judy Carluccio

Advisory Committee

Vernon Char, Jennifer-Anne Meneray

Contact Information

Jeff Huff

jeffh@hurthawaii.com

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PJ Salmonson

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Stan Jensen

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Carl Gammon

carl@hurthawaii.com

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

Note: There is no pre-race meal.

Date	Time	HURT 100 Event ¹	Location
Friday, January 15	13:30 – 15:30	Mandatory Runner Registration	Nature Center
“	14:30 – 15:30	Mandatory Pre-Race Briefing	“
Saturday, January 16	04:45	Mandatory Runner Check-in	“
“	05:30	Drop Bag Collection	“
“	06:00	Race Start	“
Sunday, January 17	18:00	Race End	“
Monday, January 18	17:00 – 21:00	Post-Race Banquet	Mid Pacific Country Club

¹ See following text for description of event listed

Mandatory Runner Registration: Runners are to pick up bib numbers and bags. [Parking](#) in the lot at the Nature Center is limited; participants are advised to carpool and / or arrive early. Runners should not bring [drop bags](#) to any of the events scheduled for Friday (they will be collected on Saturday morning).

Mandatory Pre-Race Briefing: Distribution of information including logistics / course updates, safety, and other topics, in addition to an optional question and answer session. The briefing will be held in a small pavilion, adjacent to a lawn used as an overflow area. Participants may wish to bring sun protection, fluids, insect repellent, and a folding chair or beach towel for comfort.

Mandatory Runner Check-in: Runners need to check in prior to entering the race in order to 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 Paradise Park and Nu'uano [aid stations](#).

Post-Race Banquet: No-host, buffet-style dinner with awards ceremony, and ample opportunity for mingling. Tickets can be purchased online when registering for the race. Early purchase is strongly recommended as tickets have sold out in previous years. Food includes vegetarian options, and drinks are available through a no-host bar. Attire is best described as sporty casual.

CUT-OFF TIMES / AID STATION CLOSURES

Runners are allotted 36 hours to finish the 100-mile event, from 06:00 on Saturday, January 18 to 18:00 on Sunday, January 19. 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 16	06:00	Course Start / Opening	Nature Center	0
Sunday, January 17	11:00	Cut-off #1	Nature Center	80
"	13:30	Cut-off #2	Paradise Park	87
"	13:45	Aid Station Closure	"	-
"	15:30	Cut-off #3	Nu'uanu	92.5
"	15:45	Aid Station Closure	"	-
"	18:00	Course Finish / Closure	Nature Center	100
"	18:15	Aid Station Closure	"	-

COURSE

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

The route is marked with 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 too.

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

Trail Sequence Table

Leg #1 White Tape	Leg #2 Lime Green Tape	Leg #3 Orange Tape
Nature Center Aid Station	Paradise Park Aid Station	Nu'uaniu Aid Station
(Across bridge onto) Maunalaha Trail	(Straight on short paved section to) Mānoa Falls Trail	(Straight and across) Nu'uaniu Stream
(Straight and down) Makiki Valley Trail	(Left and up) 'Aihualama 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) Nu'uaniu Trail [Bien's Bench is at the top of Nu'uaniu ridge]
(Across road and right, along short section of) Tantalus Drive	(Right onto) Nu'uaniu Trail [Bien's Bench is at the top of Nu'uaniu 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) Nu'uaniu Stream	(Straight across Round Top Drive onto) Moleka Trail
(Left onto) Pauoa Flats Trail	(Straight to) Nu'uaniu Aid Station	(Right onto) Makiki Valley Trail (then right again to continue on) Makiki Valley Trail
(Right onto) 'Aihualama 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) Paradise Park Aid Station		(Across bridge to) Nature Center Aid Station

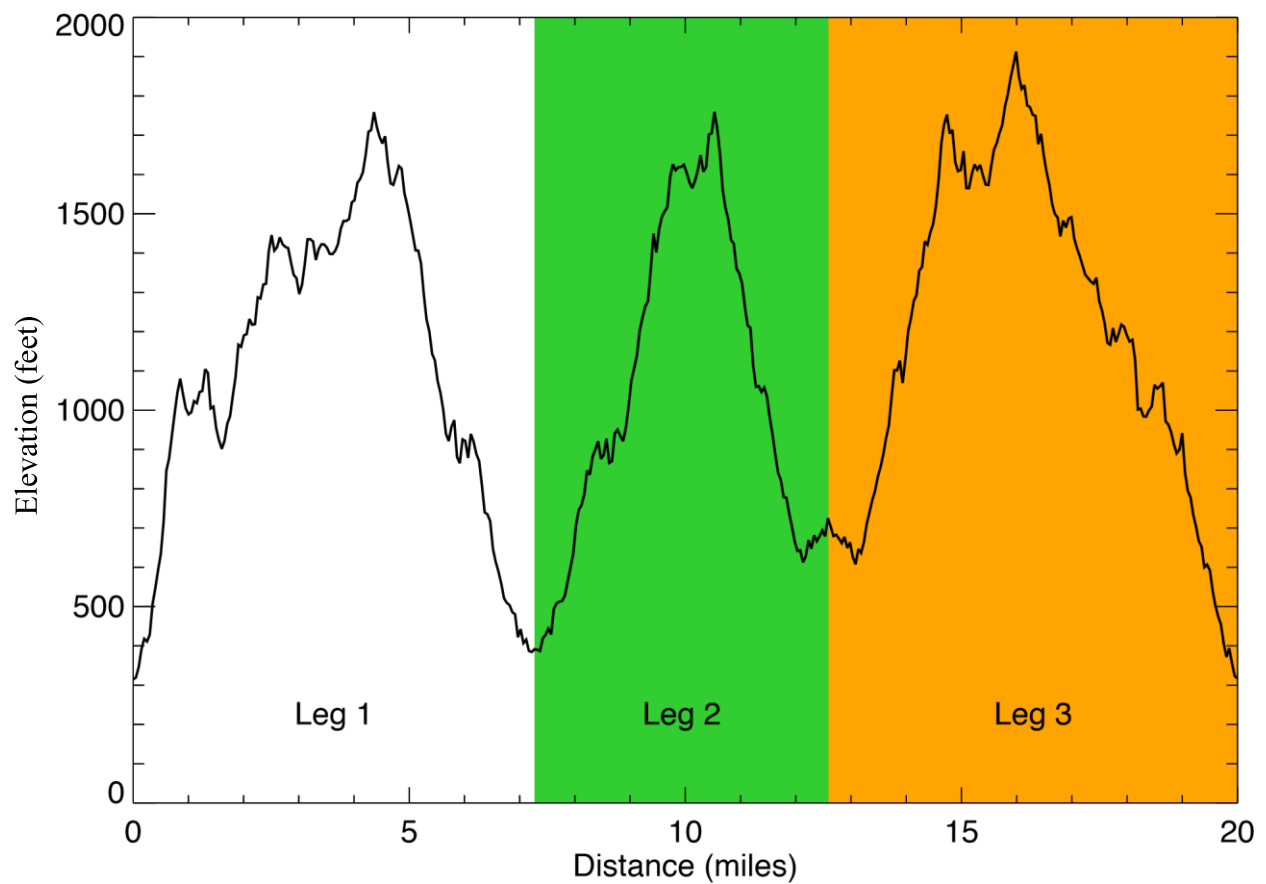
Course Map

An overview of the *HURT 100* course can be found on the following pages, where the outline of the three legs of the course as well as relevant landmarks are shown overlaid on the Nā Ala Hele trail map.

A more accurate rendering of the course based on GPS data can be accessed online through [Google Maps](#) as well as in the form of a [KMZ file](#) to be opened with [Google Earth](#).

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



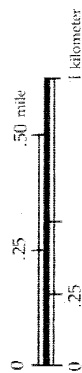
Leg 1: Nature Center to Paradise Park

Leg 2: Parae Park to Nu'uuanu

Leg 3: Nu'uuanu to Nature Center

HONOLULU MAUKA TRAIL SYSTEM

2. Kaneohe Trail 0.7 mi / 1.1 km
3. Maunaloa Trail 0.7 mi / 1.1 km
4. Nahuana Trail 0.75 mi / 1.2 km
5. Makiki Valley Trail 1.1 mi / 1.7 km
7. Moleka Trail 0.75 mi / 1.2 km
8. Manoa Cliff Trail 3.4 mi / 5.5 km
10. Pauoa Flats Trail 0.75 mi / 1.2 km
11. Nuuanu Trail 1.5 mi / 2.4 km
12. Judd Trail 0.75 mi / 1.2 km
13. Aihualama Trail 1.3 mi / 2.1 km
14. Manoa Falls Trail 0.8 mi / 1.3 km



Contour Interval: 40 feet

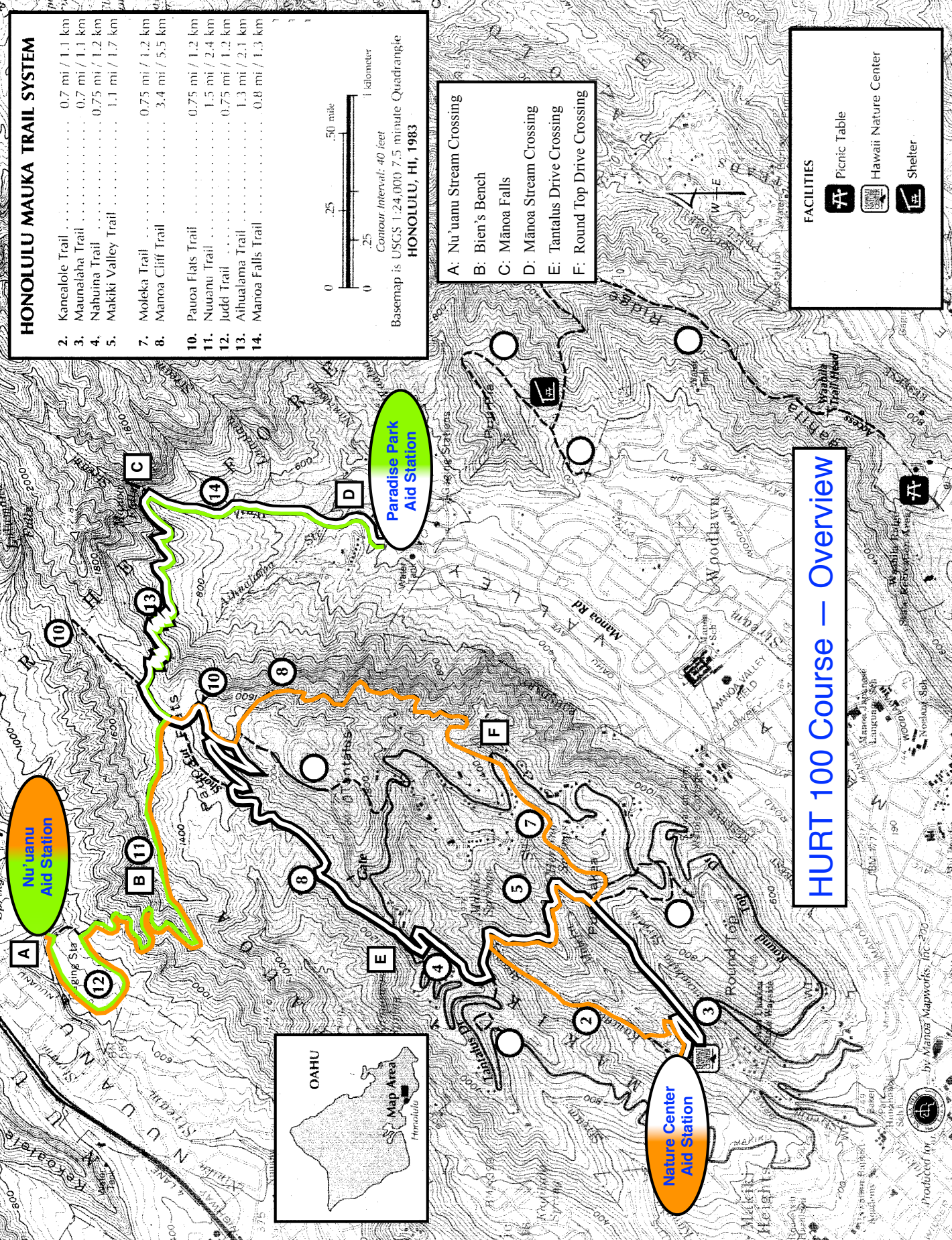
Basemap is USGS 1:24,000 7.5 minute Quadrangle
HONOLULU, HI, 1983

- A: Nu'uanu Stream Crossing
B: Bien's Bench
C: Mānoa Falls
D: Mānoa Stream Crossing
E: Tantalus Drive Crossing
F: Round Top Drive Crossing

FACILITIES

- Picnic Table
- Hawaii Nature Center
- Shelter

HURT 100 Course – Overview



HONOLULU MAUKA TRAIL SYSTEM

2. Kaneohe Trail 0.7 mi / 1.1 km
3. Maunaloa Trail 0.7 mi / 1.1 km
4. Nahuana Trail 0.75 mi / 1.2 km
5. Makiki Valley Trail 1.1 mi / 1.7 km
7. Moleka Trail 0.75 mi / 1.2 km
8. Manoa Cliff Trail 3.4 mi / 5.5 km
10. Pauoa Flats Trail 0.75 mi / 1.2 km
11. Nuuanu Trail 1.5 mi / 2.4 km
12. Judd Trail 0.75 mi / 1.2 km
13. Aihualama Trail 1.3 mi / 2.1 km
14. Manoa Falls Trail 0.8 mi / 1.3 km



Contour Interval: 40 feet

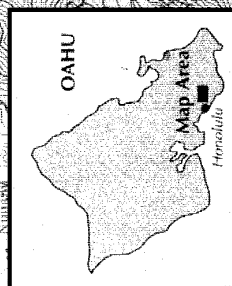
Basemap is USGS 1:24,000 7.5 minute Quadrangle
HONOLULU, HI, 1983

- A: Nu'uanu Stream Crossing
B: Bien's Bench
C: Mānoa Falls
D: Mānoa Stream Crossing
E: Tantalus Drive Crossing
F: Round Top Drive Crossing

FACILITIES

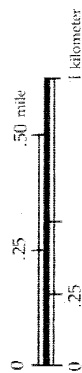
- Picnic Table
 Hawaii Nature Center
 Shelter

HURT 100 Course — Leg 1



HONOLULU MAUKA TRAIL SYSTEM

2. Kaneohe Trail 0.7 mi / 1.1 km
3. Maunalaha Trail 0.7 mi / 1.1 km
4. Nahuina Trail 0.75 mi / 1.2 km
5. Makiki Valley Trail 1.1 mi / 1.7 km
7. Moleka Trail 0.75 mi / 1.2 km
8. Manoa Cliff Trail 3.4 mi / 5.5 km
10. Pauoa Flats Trail 0.75 mi / 1.2 km
11. Nuuanu Trail 1.5 mi / 2.4 km
12. Judd Trail 0.75 mi / 1.2 km
13. Aihualama Trail 1.3 mi / 2.1 km
14. Manoa Falls Trail 0.8 mi / 1.3 km



Contour Interval: 40 feet

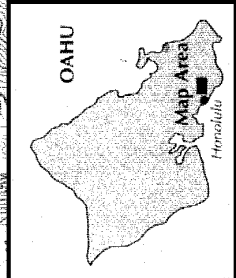
Basemap is USGS 1:24,000 7.5 minute Quadrangle
HONOLULU, HI, 1983

- A: Nu'uanu Stream Crossing
B: Bien's Bench
C: Mānoa Falls
D: Mānoa Stream Crossing
E: Tantalus Drive Crossing
F: Round Top Drive Crossing

FACILITIES

- Picnic Table
- Hawaii Nature Center
- Shelter

HURT 100 Course — Leg 2



**Nature Center
Aid Station**

**Paradise Park
Aid Station**

**Nu'uanu
Aid Station**

HONOLULU MAUKA TRAIL SYSTEM

2. Kaneohe Trail 0.7 mi / 1.1 km
3. Maunaloa Trail 0.7 mi / 1.1 km
4. Nahuia Trail 0.75 mi / 1.2 km
5. Makiki Valley Trail 1.1 mi / 1.7 km
7. Moleka Trail 0.75 mi / 1.2 km
8. Manoa Cliff Trail 3.4 mi / 5.5 km
10. Pauoa Flats Trail 0.75 mi / 1.2 km
11. Nuuanu Trail 1.5 mi / 2.4 km
12. Judd Trail 0.75 mi / 1.2 km
13. Ahualama Trail 1.3 mi / 2.1 km
14. Manoa Falls Trail 0.8 mi / 1.3 km



Contour Interval: 40 feet

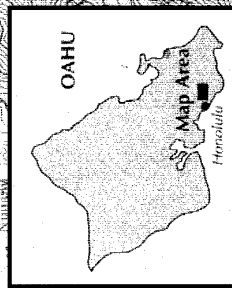
Basemap is USGS 1:24,000 7.5 minute Quadrangle
HONOLULU, HI, 1983

- A: Nu'uanu Stream Crossing
B: Bien's Bench
C: Mānoa Falls
D: Mānoa Stream Crossing
E: Tantalus Drive Crossing
F: Round Top Drive Crossing

FACILITIES

- Picnic Table
- Hawaii Nature Center
- Shelter

HURT 100 Course — Leg 3



Paradise Park
Aid Station

Nature Center
Aid Station