

BADWATER ULTRAMARATHON

The Challenge of the Champions



adventureCORPS™

2010 Race Magazine





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“Out There Since 1984”



Founded in 1984, AdventureCORPS, Inc. is an athlete-run firm producing and promoting ultra-endurance and extreme sports events, lifestyle, and media. Adventure is our way of life, so we are pleased to host the 33rd anniversary Badwater Ultramarathon, known globally as “the world’s toughest foot race,” on July 12-14, 2010.

A true “challenge of the champions,” this legendary race pits up to 90 of the world’s toughest athletes—runners, triathletes, adventure racers, and mountaineers—against one another and the elements. Covering 135 miles (217km) non-stop from Death Valley to Mt. Whitney, CA in temperatures up to 130F (55 centigrade), it is the most demanding and extreme running race offered anywhere on the planet.

The start line is at Badwater, Death Valley, which marks the lowest elevation in the Western Hemisphere at 280’ (85m) below sea level. The race finishes at Mt. Whitney Portal at 8,360’ (2533m). The Badwater course covers three mountain ranges for a total of 13,000’ (3962m) of cumulative vertical ascent and 4,700’ (1433m) of cumulative descent. The Portal is the trailhead to the Mt. Whitney summit, the highest point in the contiguous United States.

Now in its eleventh year producing this race, AdventureCORPS is pleased to welcome the support of race sponsors Moeben Sleeves and Hammer Nutrition. AdventureCORPS also appreciates the support of Joshua Tree Products, Furnace Creek Inn and Ranch Resort, Panamint Springs Resort, Seasons Restaurant of Lone Pine, Pizza Factory of Lone Pine, Dow Villa of Lone Pine, the community of Lone Pine, CA, and many other generous companies and individuals.

Additionally, we salute the National Park Service, U.S. Forest Service, Inyo County, California Department of Transportation, and California Highway Patrol, whose staff—and permits—oversee this event.

We wish everyone—racers, crews, staff, sponsors, media, and fans—a safe and successful race this year. May this truly be a life-changing experience for everyone



Sincerely,

Chris Kostman

Race Director and Chief Adventure Officer

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"We're Out There"
(☺☹+!→)

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2009 Final Finishers
Peggy Gaudet and Bill Bradley
with their support crews.

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GENERAL INFORMATION

MANDATORY RUNNER CHECK-IN:

12:00-2:00PM, Sunday, July 11, 2010, Visitors Center Auditorium, Furnace Creek, CA. Every runner must personally attend at some point during the two hour timeframe. Photo identification is required for all runners. Please bring the completed Runner Check-In Form and signed waivers for all crew members and the runner. All paperwork must be complete before walking in the door. Be sure to pay your \$20 per car Park Entrance Fee at the Furnace Creek Visitor Center BEFORE you come to Runner Check-In.

MANDATORY PRE-RACE MEETING:

3:30-5:00PM, Sunday, July 11, 2010, Visitors' Center Auditorium, Furnace Creek, CA. Every runner and at least one crew member per runner must attend the entire meeting. We highly recommend that all crew members attend.

MEDIA MEETING:

There will be a brief, mandatory meeting of all journalists after the Pre-Race Meeting in the auditorium.

SUNRISE / SUNSET:

Civil Twilight (AM): 5:14am
Sunrise: 5:33am
Sunset: 8:12pm
Civil Twilight (PM): 8:41pm.

STARTING TIMES:

6:00AM, 8:00AM, and 10:00AM, Monday, July 12, 2010. Runners may attend only their assigned start time. Runners must check in, ready to race, 30 minutes prior to their start.

ENDING TIME:

The event is officially over 60 hours after each starting group, so ALL runners MUST leave the course by either 6:00PM, 8:00PM, or 10:00PM, July 14, 2010.

POST-RACE GET-TOGETHER:

6:00PM, Wednesday, July 14, 2010, Lo-Inyo Elementary School, Multi-Purpose Room, 223 East Locust Street, Lone Pine, CA. (north end of town; east of Hwy 395). Pizza and drinks will be served. No charge for all staff, racers, and up to six crew members with each racer.

PERMITS:

This event is held under permits from the Inyo National Forest, Death Valley National Park, California Department of Transportation, and Inyo County. (If one of them won't issue us a permit, this race is history. So don't screw up!)

COURSE RECORDS:

Men's: Valmir Nunes, 2007, Brazil: 22:51:29.
Women's: Jamie Donaldson, 2008, USA, 26:51:33.

DRIVING DISTANCES:

Las Vegas Airport to Furnace Creek:
140 miles

Los Angeles Airport to Furnace Creek:
250 miles

Lone Pine to Las Vegas Airport:
240 miles

Lone Pine to Los Angeles Airport:
210 miles



JACK IS BACK!



Just try to keep up with everybody's favorite Badwater Family member, Jack Denness, 75, of Rochester, County Kent, UK! After eleven official finishes during a fourteen year career at Badwater, Jack "retired" after the 2005 race, when he became the race's first 70-year-old finisher. But never one to relax on the couch while watching "the telly," Jack continued to compete in other ultras around the world, always carrying "the Badwater flag" while doing so. He also spent the last four years on the Badwater race staff, during which he kept tabs on all the racers at the Furnace Creek and Panamint Springs checkpoints while working with his lovely wife Mags along with Leon Draxler.

Well, in 2010, Jack is back! He's the first ever 75-year-old competitor in the world's toughest foot race! Who can be surprised, though, when you consider the long, winding road which, for sixteen years, has always brought him from Jolly Old England across the globe to Death Valley, his home away from home? Read on, and wonder at this incredible gentleman's rakish good looks, charming demeanour, vitality, and impressive athletic resumé:



JACK DENNESS

- 1991: 56:19:20** (A rookie at age 56!)
- 1992: 58:19:00**
- 1993: 50:25:00**
- 1994: 59:25:06** (Also completed the Badwater Double)
- 1995: Did Not Race**
- 1996: 56:13:00**
- 1997: DNF**
- 1998: 57:39:00**
- 1999: 54:06:00** (Featured in the film, "Running on the Sun")
- 2000: 58:37:00**
- 2001: 51:52:52**
- 2002: 57:08:56** (Tenth finish)
- 2003: Support crew for Wayne Simpson**
- 2004: 67:59:45** (Honorable mention)
- 2005: 57:52:12** (First ever 70-year-old finisher)
- 2006: Inducted into the Badwater Hall of Fame; Race Staff**
- 2007 through 2009: Race Staff**
- 2010: Competitor, age 75!**





A Salute to Dr. Lisa Bliss: Nine Years of Service, Sports, and Smiles

By Chris Kostman

IF any one person has "seen it all," literally, at the world's toughest foot race, it's Dr. Lisa Bliss of Spokane, WA. It all began in 2002 when she served on the support crew for Steven Silver. He notched his sixth and final finish that year, but Lisa's long love affair with Death Valley, Mt. Whitney, and the Badwater Family had only just begun.

In 2003 Lisa returned to head up the race's first ever Medical Team, an important step in the evolution of and focus on safety and professionalism for the 135-mile foot race held in the world's most inhospitable environment.

In 2004 she organized the Medical Team before the race, then toed the starting line as competitor. She placed 3rd woman and 15th overall in her rookie debut, with an impressive time of 37:41:48.

In 2005 she returned as Medical Director, while also heading up the "Study on Fluids and Electrolyte Balance: Hyponatremia in Ultramarathoners," enlarging on her career in the science of ultra sports, something which would lead her to pre-

senting several years' worth of research findings and making her an in-demand speaker at sport science conferences.

In 2006, Lisa once again organized and directed the Medical Team, and also conducted more research on the athletes, this time a "Sodium Balance Study," which, among other things discovered that "those who reported the most heat acclimatization training prior to the race had a lower sweat sodium concentration at the start," and "sodium balance homeostasis was maintained despite extraordinarily challenging conditions and bodily stress."

Entering 2007, Lisa had crewed once, competed once, directed the medical team for three years, and conducted two years of scientific research at the race. Having seen and done and learned so much at Badwater, literally nobody knew what she knew about surviving, and succeeding, at Badwater. It was time to get back in the arena as a competitor and put all that knowledge and wisdom to good use!

The 2007 race was never easy for Lisa; she had to stop twice to tend to major blisters, and she battled through a variety of challenges. But, aided by a crew of close friends, she pressed on, racing towards her own vision of her highest self. At mile 72 at Panamint Springs, she was three hours, 25 minutes behind the women's race leader, a rookie fireball named Jamie Donaldson.

As the miles and hours passed, Lisa discovered that she was getting stronger and stronger. On Towne Pass she had been the fifth woman, but from there on she started passing her rivals one by one all the way to Lone Pine where she finally caught the now ailing Jamie Donaldson.

"Maybe they just went out a little too hard. Maybe I benefited from all those long stops I was taking to tend to my blisters and tendon problem. I don't know, but at around 90 miles I started to feel real good and just began running. I must have had the fastest woman's split from Darwin to Lone Pine. I ran the whole way," said Bliss after the finish.

“

What does it take to be a champion? It takes hard work, passion and a competitive spirit willing to risk all in order to make it to the finish line first. In the minds of most Lisa Bliss was not a favorite to win Badwater but she shocked the world: A pretty young girl who smiles all of the time yet has a burning desire to succeed and will risk all to do just that. She welcomes all into her world, but on the race course she is a fierce competitor. While she talks, smiles and giggles, she runs with purpose and the heart of a lion.”

—Dave Bursler, crew for Lisa in 2007

Bliss passed Donaldson at Lone Pine, 122 miles into the race with only 13 miles remaining, and went on to win with a time of 34:33:40. Everybody was happy for Lisa, even the competitors she'd passed on the way into Lone Pine and on the way to Whitney Portal.

Never one to bask in glory, or to try to “defend a title,” Lisa returned to Badwater in 2008 and 2009 to again head up what had become, with her direction and inspiration, the finest Medical Team at any ultra event. That same Medical Team from 2009 is back in 2010, with one new addition, proof that Lisa is a great leader who brings out the best in people who want to work with and for her.



“Why run ultras? Why not? Ultrarunning is an opportunity to put aside my responsible, hair sprayed life for 24 hours to run and play in the woods. We drink sugary drinks, shine flashlights in the night, splash through water, and eat quartered peanut butter and jelly sandwiches. All along the way we get unsolicited compliments from family, friends, and strangers about how good we look and how well we’re doing. Why would I NOT run ultras???”

—Lisa Bliss, seen above with most of the 2009 medical team

Dr. Lisa’s Nine Years at Badwater

- 2002: Support Crew, Steven Silver (8th place)**
- 2003: medical team director**
- 2004: 3rd woman, 15th overall, 37:41:48**
- 2005: medical team director**
- 2006: medical team director**
- 2007: 1st woman, 16th overall, 34:33:40**
- 2008: medical team director**
- 2009: medical team director**
- 2010: medical team director**

Over nine years, Lisa poked and prodded ill-stricken racers (and crew members and even race sponsors), who, more often than not, were able to complete their races after receiving care from Lisa and her team. She saw athletes at their worst, she took care of them with an ever-present smile, she observed, she learned, she listened, she put her foot down whenever necessary, and she has done her best, always, to help the Badwater Ultramarathon remain a safe and respected race. For that, and so much more, we are thankful.



THE DANGERS OF RUNNING IN THE HEAT

By Jason Hodde, MS, ATC/L

Running in hot weather can pose many dangers to ultrarunners. Although most runners are aware of the dangers of running for prolonged distances in hot and humid weather, many are also inadequately prepared for the intense stress placed on the body during these hot weather runs.

Scott Jurek takes one of many ice baths in 2006.

In July 2002, I participated in the 25th anniversary of the Badwater Ultramarathon, a 135-mile trek from the lowest place in the continental United States (Badwater Basin), through Death Valley National Park, and to the foot of Mount Whitney, the Whitney Portals, at an altitude of 8,360 feet (2,548 meters). The run was held in the middle of one of the most severe heat waves southern California has ever seen. In preparation for the run, I made sure my crew was aware of the signs and symptoms of heat illness, as well as how to treat me should problems occur. Here are some of the dangers of ultrarunning in the heat, and preventative measures that can be taken to avoid potential problems.

The Heat Index

The heat index is the apparent temperature felt by the body due to the combined effects of actual temperature and humidity. Most people understand that as the air temperature goes up, so does the heat index, but humidity also plays a role. As the humidity rises, the body is unable to efficiently evaporate the sweat it produces. Therefore, the perceived temperature is much higher than the actual air temperature. The loss of cooling efficiency thus makes exercise extremely dangerous.

Although it is convenient to use a single number to describe the apparent temperature your body feels, keep in mind that heat and

humidity affect everybody differently. Several assumptions are made to calculate the heat index measurements in the table below. Specifically, the heat index assumes the body to be:

- 5' 7" (170 cm) in height
- 147 pounds (67 kg) in weight
- Caucasian
- At 98.6° F (37° C) body temperature
- Clothed in long pants and a short-sleeved shirt
- In shade
- Walking at a speed of 3.1 mph (5 kph)
- In a breeze of 6 mph (10 kph)
- Not dripping with sweat

Changing any of these factors can either increase or decrease the heat index from those shown in the table. Be aware that heat index values of over 100 significantly increase your risk of heat-related illness.

Relative Humidity	Air Temperature (Degrees F)										
	70	75	80	85	90	95	100	105	110	115	120
	Heat Index										
0%	64	69	73	78	83	87	91	95	99	103	107
10%	65	70	75	80	85	90	95	100	105	111	116
20%	66	72	77	82	87	93	99	105	112	120	130
30%	67	73	78	84	90	96	104	113	123	135	148
40%	68	74	79	86	93	101	110	123	137	151	
50%	69	75	81	88	96	107	120	135	150		
60%	70	76	82	90	100	114	132	149			
70%	70	77	85	93	106	124	144				
80%	71	78	86	97	113	136	157				
90%	71	79	88	102	122	150	170				
100%	72	80	91	108	133	166					

Data from the US National Weather Service

Heat Illnesses

There are three major heat illnesses—and all of them can be exacerbated by ultra distance running and prematurely end an ultrarunner's race. In all cases, the main reason that runners experience heat illness is dehydration. If you replace lost fluids and electrolytes and are able to train your body to process a high volume of fluid in a short period of time, you significantly decrease the risk of experiencing these race-ending medical emergencies.

Heat cramps: Exercising in hot weather can lead to muscle cramps, especially in the legs. This is usually caused by imbalances or deficiencies in your body's electrolyte stores. A cramp is characterized by sharp, stabbing pain in the muscle and rarely works itself out on its own. On a training run earlier this year in Death Valley, many runners complained of cramps in their legs; I suffered from cramps in my diaphragm and had difficulty breathing for more than an hour! Cramps become less frequent with heat training, but for those of us unaccustomed to such extreme conditions, maintaining adequate hydration and electrolyte balance is critical to avoiding them. To eradicate cramps, you should stop running, drink fluids containing electrolytes, cool your body with wet towels, and immediately get out of the sun.

Heat exhaustion: Losing fluid and electrolytes through sweat leads to dizziness and weakness if the lost fluids are not replaced. Heat exhaustion is characterized by a moderate rise in body temperature, dizziness, nausea and vomiting, and a headache. You might also experience weakness, lack of coordination, heat cramps, heavier than usual sweating accompanied by moist and cold skin, and "goose bumps." Your heart rate may rise and you won't be able to run as fast due to fatigue. Many runners—even those who are well trained—will suffer from mild heat exhaustion after running for several hours in hot and humid conditions. If you experience the signs of heat exhaustion, stop running immediately and drink fluids containing electrolytes, cool your body with wet towels, lie down and elevate your feet a few inches above your heart, and immediately get out of the sun.

Since heat exhaustion can lead to the most severe form of heat-related illness, heat stroke, seeking prompt medical attention for heat exhaustion is also highly recommended.

Heatstroke: In extreme cases heat can upset the body's thermostat, causing body temperature to rise to 105 degrees F or higher. This is a life-threatening situation that requires immediate medical attention. While it is common for untreated heat exhaustion to rapidly progress to heatstroke, heatstroke can (and does) occur without the signs of heat exhaustion being apparent. Symptoms of heatstroke include lethargy and extreme weakness, confusion and odd or bizarre behavior, disorientation and unconsciousness. Because heatstroke is a complete failure of the body's temperature regulation system, sweating ceases and the skin becomes hot and dry. Convulsions or seizures can occur as the brain begins to shut down. Coma and death are also possible in extreme cases. Heatstroke is a medical emergency that requires immediate medical attention. Call the emergency response system immediately! Get the runner out of the sun, remove all clothing, and immediately rub their body with ice or immerse the runner in cold water.

By staying properly hydrated and recognizing the early warning signs of heat illness, as a runner you can prevent a heat-related problem from becoming a life-threatening situation. As a volunteer, recognizing these heat-related dangers may one day help you save the life of a runner who has underestimated the intensity of the surroundings.



About the Author:

Jay is a nationally Certified Athletic Trainer (ATC) licensed to practice in Indiana. He holds Master's degrees in Exercise Physiology and the Basic Medical Sciences, both from Purdue, with an emphasis on tissue repair and healing. Jay works full-time as the Clinical Affairs Manager for Cook Biotech Incorporated, a medical device company in Indiana. He has completed over 60 ultramarathons, including the Grand Slam of Ultrarunning and the 2006 Badwater Ultramarathon.



2007 men's champion and record-breaker Valmir Nunes gets help with staying cool.

THE DANGERS OF HOT WEATHER RUNNING

DEHYDRATION, HEAT CRAMPS, HEAT EXHAUSTION, HEATSTROKE & HYPONATREMIA

By Claudio Piepenburg

(Originally published by Road Runner Sports)

Running in hot weather can pose dangers to runners. Particularly dangerous is racing in hot, humid summer conditions. Here's how to protect yourself from these five serious (and potentially fatal) conditions.

Dehydration

Dehydration is not limited only to the summer months, although it's probably more likely to occur during that time. Many physicians believe that most people are in a constant state of dehydration. Since coffee, tea, soda and alcohol act as a diuretic, anyone who drinks these fluids on a daily basis, and doesn't drink at least an equal amount of water, will probably be dehydrated. If the person is physically active, the potential for dehydration is even greater.

Working out in hot, humid conditions promotes sweating, which in turn can cause dehydration. Sweating is good for you because it cools your body, but when you lose too much water you become dehydrated. If you're already slightly dehydrated, sweating will only

make it worse. It's important to maintain an adequate fluid intake all the time. Don't expect that you can make up for several days of not drinking enough by downing two cups of sports drink before your next long run or race. It's important to keep hydrated all the time. Once you start to feel thirsty, it's too late.

The average (sedentary) person needs a minimum of eight 8-ounce glasses of fluid a day. Runners need more: anywhere from four to eight quarts of fluid. That translates to at least sixteen 8-ounce glasses daily. Remember that diuretics don't count! Drink water and sports drinks, and if you don't have to worry about calories, fruit drinks or juice.

Two hours before your daily summer workout or a race, you should drink 16 ounces of fluid. Then ten minutes or so before you start to run, drink another one or two cups of water or sports drink. Drinking early and drinking often is the key. During a race you should drink six to twelve ounces of fluid every 15-20 minutes. If the weather is very hot, you may

need to drink even more. Training in warm weather, you should drink at least every 35 to 40 minutes. (Remember you will have already had two 8-ounce glasses before you started.) If you're running a race shorter than 30 minutes, you probably won't need any water other than what you drank before the start. The same goes for the last few miles of a longer race. If you're racing or training for longer than an hour, drink sports drinks as opposed to strictly water.

Start drinking immediately after finishing a run, no matter if it was a race or a workout. Minimum is 16 ounces for every 30 minutes you ran. If you tend to sweat a lot, you'll need more. Weigh yourself after you've run. Drink at least 16 ounces of fluid for every pound you lose through sweating.

By monitoring the color of your urine you can tell if you're hydrated. It should be pale yellow or even clear. If it isn't, you need to drink more fluids. It's important that you retain the fluid, so be careful if you're urinating every fifteen or twenty minutes. To restore your fluid balance, eat something salty (a bag of pretzels, salted nuts, crackers or potato chips), then drink a sports drink. The salt will make you thirstier, so you'll take in even more fluid and urine production will decrease.

Heat Cramps

Have you ever seen a runner bent over at the side of the road massaging their calves during a race? Chances are that he or she had heat cramps. Heat cramps are very painful (envision someone stabbing a knife deep into your muscles!) and rarely "work themselves out". The cramps occur because you've lost minerals through sweating and dehydration. Once you've reached the point of heat cramps, it's too late to try to replace fluids on the run. To make the cramps go away you should:

- Stop running
- Drink fluids immediately. The fluids should include sports drinks as well as water
- Massage the muscles once the pain begins to subside
- Cool your body with wet towels
- Get out of the sun

Heat Exhaustion

Heat exhaustion is a very serious condition that can lead to heatstroke. The symptoms of heat exhaustion are:

- Dizziness
- "Goose bumps" (particularly on the torso and arms)
- Nausea (sometimes accompanied by vomiting)
- Moderate to severe headache
- Weak legs
- Lack of coordination
- Rapid pulse
- Heavy sweating often accompanied by moist and cold skin
- Muscle cramping

If you experience any of these symptoms you must:

- Stop running immediately
- Get medical attention
- Drink large amounts of fluids, including sports drinks
- Get out of the sun
- Lie down and elevate your feet above your heart
- Loosen your clothing

Heatstroke

Heatstroke can be fatal. Unfortunately runners will sometimes ignore the symptoms of heat exhaustion (particularly in races longer than 10K) and will continue to push themselves until they're nearing a total thermoregulatory breakdown. The symptoms of heatstroke are very similar to those of heat exhaustion, but rapidly progress to:

- Disorientation
- Weakness in the legs to the point that the runner may fall
- Strange behavior (including flailing with the arms and shoving)
- "Fuzzy" thinking
- Rapid pulse
- Cessation of sweating and hot/dry skin
- Body temperature that may reach 104 degrees or higher
- Lack of consciousness
- Convulsions or seizures
- Coma



Noora Alidina receives fluids for inside and out during the 2007 race from her husband and daughter.

Someone suffering from heatstroke needs immediate medical attention. They should be moved out of the sun, cooled by either rubbing their body with ice or immersing them in cold water and given fluids intravenously.

Hyponatremia

Within the last few years the condition known as hyponatremia has begun to attract the attention of sports medicine physicians, exercise physiologists, and the medical directors at some of the larger marathons around the country. Hyponatremia has been called water intoxication because of the symptoms it produces. According to Dr. Tim Noakes, Professor of Exercise & Sports Science Director at the University of Cape Town, "...a person with hyponatremia looks like he or she is mildly drunk. They can't concentrate normally...they forget what you were talking about and start to concentrate elsewhere."

Hyponatremia occurs when the body becomes dangerously low in sodium. It's caused when you literally take in too much water. Although scientists have known about it for a long time, it has only been in the last few years as more runners have been competing in marathons that it has become a concern. According to Dr. Noakes, fluid has to be ingested at high levels for several hours for hyponatremia to occur. He suggests that a runner would have to be drinking water regularly for at least four to six hours to develop the condition. So runners taking four to six hours or more to run a marathon are at particular risk.

Unfortunately, symptoms of hyponatremia tend to mimic those of severe dehydration and/or heat exhaustion. By giving the athlete more water to drink the hyponatremia becomes worse, as more and more sodium is flushed out of the system. If a runner with hyponatremia is given fluids intravenously, they can suffer a

MEDICAL RISKS IN THE BADWATER ULTRAMARATHON

fatal reaction. Dr. Noakes and other sports medicine professionals recommend that physicians and other medical personnel at road races be alert for the signs of hyponatremia. One of the earliest symptoms is a craving for salty food.

Although hyponatremia is rare, it's wise to be aware that it can occur, particularly if you're running a marathon in unusually hot weather. Hyponatremia serves as a reminder that water is good, but don't forget sports drinks, which replenish your body with the sodium, potassium and other trace minerals you lose through sweat. It's worth repeating: if you're going to be running (or racing) for longer than an hour, you should be drinking a sports drink as well as water.

About the author:

Claudia Piepenburg has been running for 21 years and is the current editor for Peak Run Performance. She holds or has held state age-group records in Michigan, North Carolina, Florida, Tennessee and Virginia. In 1990, she was ranked 18th fastest masters woman in the world and 8th fastest masters woman in the U.S. in 1990 and 1991. She competed in the 1988 Olympic Marathon Trials, was 20th woman overall in the 1987 Boston Marathon and women's winner of the 1986 Virginia Beach Marathon. If you have questions or comments for Claudia, she can be reached at cpiepe@roadrunnersports.com.



MEDICAL RISKS IN THE BADWATER ULTRAMARATHON

This 135 mile race is probably the most physically taxing competitive event in the world. It also has considerable medical risks. All runners and crews must appreciate these two facts both before and during the race.

Heat illness and heat stroke are serious risks. These can cause death, renal shutdown, and brain damage. It is important that runners and crews be aware of the symptoms of impending heat illness. These include: nausea, vomiting, headache, dizziness, faintness, irritability, lassitude, weakness, and rapid heart rate. Impending heat stroke may be signaled by a decrease in sweating and goose bumps, especially over the chest.

Heat stroke may progress from minimal symptoms to complete collapse in a very short period of time. Deaths and renal shutdown (kidney failure) have been reported in other ultra-marathons. Adequate conditioning is mandatory.

Adequate fluid and electrolyte intake is the most important preventative for heat illness. Runners may well require dozens of gallons of fluid during this race. Proper pace is crucial.

The high altitude plus exertion can also produce various degrees of altitude sickness. This can lead to severe lung and brain swelling, and even death. The main treatment is rest, and especially to get to a lower altitude.

Blisters are also a problem on this course, with pavement temperatures perhaps reaching 200 degrees. Proper foot care & preparation are essential for having a successful race.

Remember, you are responsible for your well-being while participating in this race. There are no aid stations. Know where your limits are and know your body. Your acceptance of invitation to this race declares that you are aware of the risks & potential health problems.



FINISHER DATA ANALYSIS: BADWATER ULTRAMARATHON, 1990-2009

Year	Starters	Finishers	Buckle Cut-Off	Sub 60hr	Sub 48hr	Sub 40hr	Sub 34hr	New M Rec?	New F Rec?
2009	86	75	48 hours	87%	77%	47%	24%		
2008	82	75	48 hours	91%	83%	37%	10%		26:51:33
2007	84	78	48 hours	93%	77%	47%	18%	22:51:29	
2006	85	67	48 hours	79%	62%	24%	13%		
2005	81	67	48 hours	83%	56%	22%	7%	24:36:08	
2004	72	57	48 hours	79%	58%	28%	8%		
5yr avg	80.8	68.8		85%	67%	32%	11%		
2003	73	46	48 hours	63%	42%	14%	5%		
2002	78	58	48 hours	74%	47%	12%	4%		27:56:47
2001	71	55	48 hours	77%	46%	14%	7%		
2000	69	49	48 hours	71%	41%	16%	12%	25:09:05	29:48:27
1999	42	33	48 hours	78%	60%	26%	12%	27:49:00	36:58:00
5yr avg	66.6	48.2		73%	47%	16%	8%		
1998	29	20	48 hours	69%	41%	17%	10%	28:09:00	
1997	27	20	48 hours	74%	44%	26%	3%	29:10:00	37:01:00
1996	23	14	45 hours	61%	35%	1%	4%	33:01:00	41:13:00
1995	24	16	45 hours	67%	38%	13%	0%		
1994	25	16	45 hours	64%	32%	1%	4%		
5yr avg	25.6	17.2		67%	38%	12%	4%		
1993	12	10	60 hours	83%	50%	25%	17%		
1992	14	13	60 hours	92%	29%	14%	14%		
1991	14	14	60 hours	100%	71%	36%	14%		
1990	21	17	70 hours	81%	29%	29%	14%		
4yr avg	15.25	13.5		89%	45%	26%	15%		

Notes in Chronological Order

1987 through 1989: Data was not included because it is incomplete and because the route was 11 miles longer than the route used from 1990 through the present.

1990 through 1995: The race began in the evening (a "PM Start"), which is, by all accounts, faster. Thus course records are not noted above.

1999: The feature length documentary film "Running on the Sun" was filmed, creating a larger field than ever before and, we would argue, a higher than average "drive to succeed" due to the plethora of cameras on the course.

2000 to the present: The field became much more international and thus significantly faster and more competitive than previous years. In 2000, the highest placed American was in sixth place, five hours behind the winner. Since then only in 2007 has a non-American won.

2002 and 2003: Pam Reed, a female, won the race overall.

2003: This year, even by Badwater standards, was "extra hot." Thus the finishing and buckling cut-off averages dipped, rather than rose, that year. Interestingly, the sub-40 and the sub-34 hour averages rose, so apparently the very top competitors were not negatively affected by the heat.



Shannon Faras-Grieger in 2009.

adventureCORPS™ presents

BADWATER ULTRAMARATHON

The Challenge of the Champions

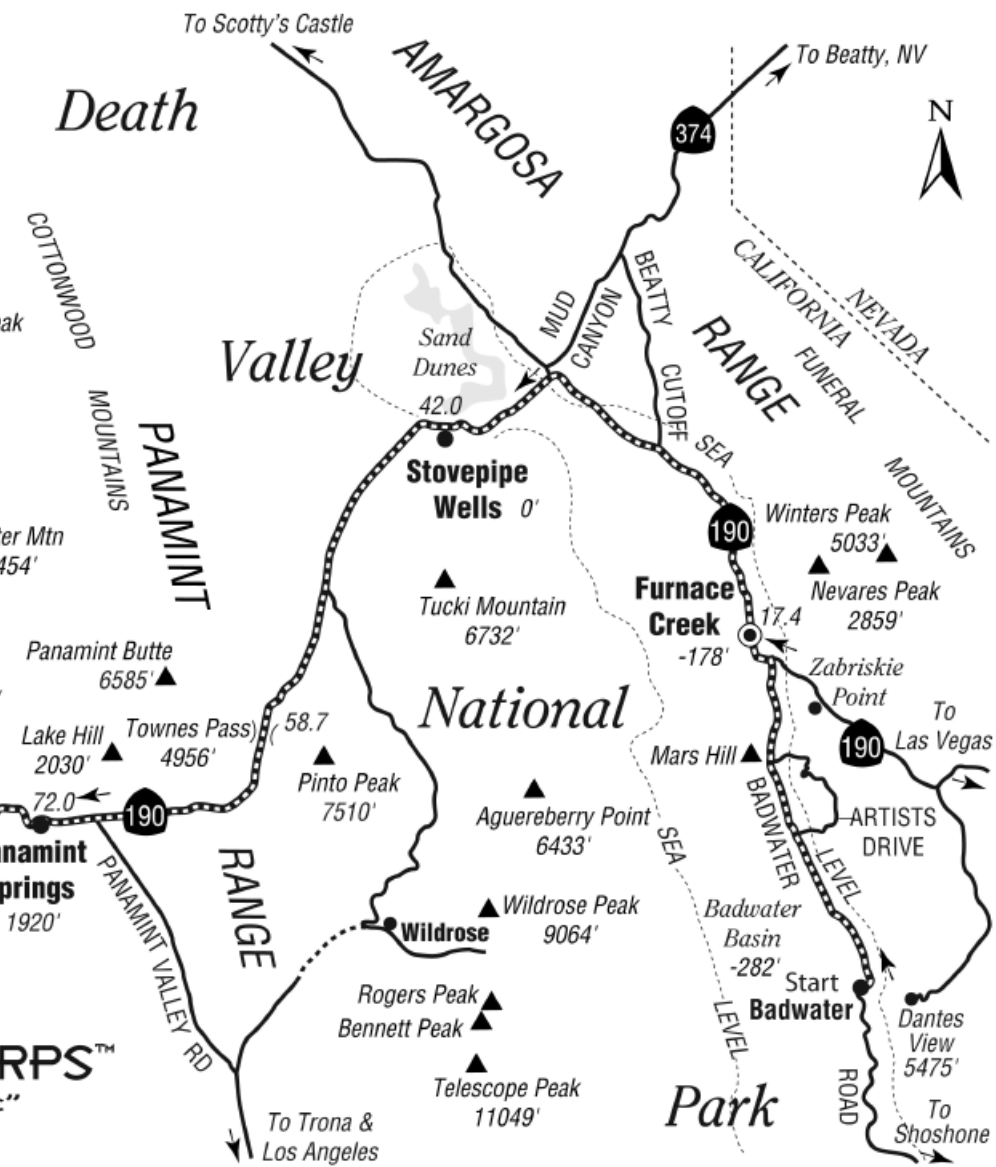


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"We're Out There"





OFFICIAL RACE ROUTE

OFFICIAL RACE ROUTE

<i>Landmark</i>	<i>Distance (mi.)</i>	<i>Elevation (ft.)</i>	
Badwater	0	-282	
Telescope Peak Sign on L.	1.8	-200	
Wide Shoulder on R.	3.1	-200	
Natural Bridge on R.	3.5	-170	
Devil's Golf Course on L.	5.5	-165	
Artist's Drive entry on R.	7.9	-165	
West Side Road on L.	10.5		
Artist's Drive exit on R.	11.6	-70	
Mushroom Rock on R.	12.9	-170	
Golden Canyon on R.	14.4	-165	
Hwy 190 & 178 – Go Left	16.4	0	
Furnace Creek Ranch on L.	17.4	-165	First Time Station on Left after entrance
Chevron Gas and ice on L.	17.6	-165	
Visitor's Center on L.	17.7	-170	
Harmony Borax Works on L.	19.0	-170	
Cow Creek on R.	20.7	-170	
1st Marathon	26.2	-170	
Beatty, NV turnoff on R.	28.3	-165	
Salt Creek turnoff on L.	30.7	-165	
Sea Level Sign on L.	31.9	0	
Scotty's Castle turnoff on R.	34.7	-130	
Sea Level Sign on L.	35.2	0	
Sand Dunes turnoff on R.	35.8	0	
Devil's Cornfield sign on R.	36.1	-80	
Sand Dunes on R.	39.9	0	
Stove Pipe Wells Village	41.9	0	Second Time Station / Medical on Left by Hotel Courtyard
Mosaic Canyon turnoff on L.	42.1	5	
1000' elevation sign	46.6	1000	
2000' elevation sign	50.5	2000	
Wild Rose turnoff on L.	51.0	2500	
2nd Marathon	52.4	2800	
3000' elevation sign on L	53.3	3000	
4000' elevation sign on L.	55.7	4000	
2nd Radiator Water Tank on R.	58.5	4900	
Towne Pass summit	58.7	4965	
4000' elevation sign on R.	61.5	4000	
Vista Point (view of Whitney)	62.2	3500	
3000' elevation sign on L.	63.8	3000	
2000' elevation sign on L.	66.1	2000	

Continued...

Landmark	Distance (mi.)	Elevation (ft.)	
Adopt-a-Highway sign on R	67.7	1800	
Panamint lake bed, east edge	68.1	1640	
Panamint lake bed, west edge	69.1	1640	
Trona turnoff on L.	69.8	1750	
Panamint Springs Resort	72.3	1970	Third Time Station on Left at Resort
2000' elevation sign on L.	72.9	2000	
Darwin Falls turnoff	73.3	2500	Dangerous, narrow area! - miles 74 to 81*
3000' elevation sign on L.	75.8	3000	
3rd Marathon	78.6	3400	
4000' elevation sign on L.	80.2	4000	
Father Crowley's Point on R.	80.2	4000	
DVNP Park Boundary	84.9	4200	
Saline Valley turnoff on R.	86.0	4800	
5000' elevation sign	87.0	5000	
Darwin turnoff on L	90.1	5050	Fourth Time Station on Left at turnoff
5000' elevation sign on L.	92.4	5000	
Grave Site on R.	96.3	4100	
27.5 mile post marker	100.0	4050	
4000' elevation sign on L.	101.6	4000	
Hwy 136 & 190 – go straight	102.9	3935	
4th Marathon	104.8	3800	
Keeler	107.8	3610	
Adopt-a-Highway sign on R.	108.5	3605	
Dolomite loop turnoff on R.	112.6	3600	
Dolomite loop turnoff on R.	116.9	3610	
Owen's River	117.7	3610	
Junction Hwy 136 & Hwy 395 - Go Right	120.3	3695	
Dow Villa Hotel on Right	122.3	3610	Fifth Time Station / Medical on Right at Dow Villa
Portal Road light – go Left	122.4	3610	
Tuttle Creek turnoff on L.	122.9	3770	
LA Aqueduct	123.0	3855	
Lone Pine Creek	124.1	4200	
Movie Flat Road on R.	125.1	4590	
Lone Pine Creek	125.3	4800	
Horseshoe Meadow on L.	125.5	5000	
Cuffe Ranch turnoff on R.	126.7	5100	

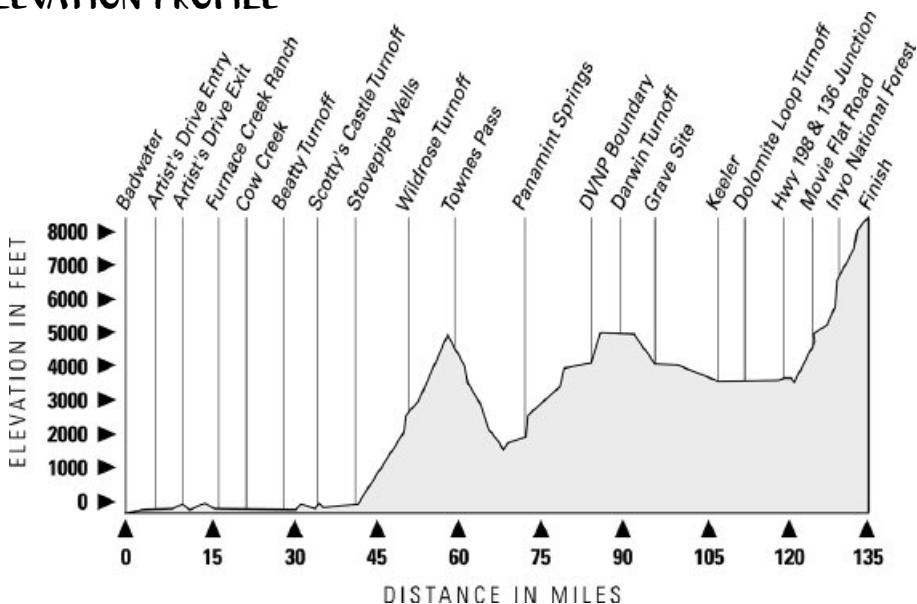
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OFFICIAL RACE ROUTE

<i>Landmark</i>	<i>Distance (mi.)</i>	<i>Elevation (ft.)</i>
Olivas Ranch turnoff on L.	128.0	5300
Lone Pine Campground on L. 129.0		5700
		Dangerous, narrow area! - miles 129 -135*
Lone Pine Creek	129.2	6000
Inyo Nat. Forest sign on R.	129.5	6400
Large pullout on R.	130.8	6890
5th Marathon	131.0	7000
Switchback to left	131.7	7215
Vista Point	132.4	7400
"Campsites 39-44" sign on R	133.3	7700
Meysan Lakes trailhead on L.	133.5	8035
Family Campsites	133.7	8100
Overflow Parking	134.3	8200
Finish	134.4	8360

Official distance is 135.0 miles. Remember all car odometers have error. Distances above are accurate in a relative sense, but you may find variation in the overall distance, as we did when creating the above routesheet.

ELEVATION PROFILE



COURSE DESCRIPTION

Badwater, Death Valley

The race begins here adjacent to a pool of salt-water located at the lowest place in the Western Hemisphere.

Furnace Creek Ranch, Mile 17.4

The first oasis in our journey. A gas station, small general store, hotel, restaurant, camping, and ice machine are available.

Stove Pipe Wells, Mile 41.9

A small market, gas station, restaurant and motel. This is not open 24 hours.

Towne Pass (4956'), Mile 58.7

Long ascent, then long descent, followed by approx. 12 long straight miles. It's a steep and narrow road with limited opportunities to park. Support vehicles, crews, and runners must be cautious and extra aware of the traffic.

Panamint Springs Resort, Mile 72.3

Restaurant, gas station, and motel with limited hours. A long, steep climb follows on a steep and narrow road with limited opportunities to park. Support vehicles, crews, and runners must be cautious and extra aware of the traffic.

Father Crowley's Turnout, Mile 80.2

This isn't the top. The road continues to rise to 5000' over rolling hills, then eventually descends into the Owen's Valley.

Keeler, Mile 107.8

A small mining town with no facilities.

Lone Pine, Whitney Portal Road, Mile 122.2

Lone Pine offers the weary runner and crew all the amenities of a real town: fast food, pizza, restaurants, motels, gas stations, grocery stores, and more, not to mention our Webcast Headquarters. Restock here for the climb to the portals. Turn left onto the Whitney Portal Road to begin the final leg, the longest and steepest climb of the race. Temperatures will steadily

decrease. Be prepared with extra layers of clothing and rain gear the final few miles. Be sure your support vehicle is completely off of the road and that you do not block traffic.

Mt. Whitney Trailhead, (8360'), Mile 135

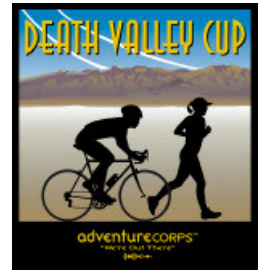
Congratulations! You have finished the most extreme running race in the world! A small diner/shop are open daylight hours. There is also a stocked fishing pond and a



2009 finisher Cheryl Zwarkowski.

The Death Valley Cup recognizes those athletes who complete both the Badwater Ultramarathon 135 Mile Running Race and the Furnace Creek 508 Mile Bicycle Race in the same calendar year. To earn this recognition is a very significant achievement in endurance sports and especially for those athletes who have come to know and love Death Valley and its environs.

For more information about Furnace Creek 508, visit www.the508.com.



Current Death Valley Cup Record Holders:

Charlie Engle, "Water Dragon" Greensboro, NC, 47 (2nd DV Cup)	2009	Badwater, 25:45:11, 4th place	Furnace Creek, 33:19:25, 4th place	=50:04:36 total time*
Shanna Armstrong "Dik Dik" Lubbock, TX, 34	2008	Badwater, 31:16:10, 3rd female, 7th overall	Furnace Creek, 34:30:58, 5th female, 24th overall	=65:47:08 total time*

Death Valley Cup Finishers, in order of fastest to least fast:

Kaname Sakurai, "Sea Lion" Nagoya, Japan, 36	2000	Badwater, 27:52:14, 3rd place	Furnace Creek, 32:31:56, 2nd place	=60:24:10 total time*
Charlie Engle, "Water Dragon" Greensboro, NC, 44	2007	Badwater, 27:42:32, 5th place	Furnace Creek, 34:31:12, 13th place	=62:13:44 total time
Danny Westergaard, "Wiener Dog" Rolling Hills, CA, 48	2007	Badwater, 32:22:58, 12th place	Furnace Creek, 35:51:38, 19th place	=68:14:36 total time
Monica Fernandez, "Quetzal" Casablanca, Morocco, 40 (Guatemala)	2008	Badwater, 35:17:59, 7th female, 12th overall	Furnace Creek, 32:58:12 2nd female, 12th overall	=68:16:11 total time
Patrick Candé, "Golden Eagle" Tahiti, French Polynesia, 48	2005	Badwater, 34:13:21, 7th place	Furnace Creek, 36:52:12 37th place	=71:05:33 total time
Danny Westergaard, "Wiener Dog" Rolling Hills, CA, 49 (2nd DV Cup)	2008	Badwater, 36:31:46, 17th place	Furnace Creek, 34:38:34, 23rd place place	=71:10:20 total time
Marshall Ulrich, "Unicorn" Ft. Morgan, CO, 43	1996	Badwater, 33:01, 1st place	Furnace Creek, 38:32:45 16th place	=71:33:45 total time
Monica Scholz, "Scarlett Fairy Cup" Jerseyville, Ontario, Canada, 39 (2nd DV Cup)	2006	Badwater, 32:07:01, 1st female, 8th overall	Furnace Creek, 40:00:02, 2nd female, 27th overall	=72:07:01 total time
Jean Michel Monot, "Manta Ray" Tahiti, French Polynesia, 45	2005	Badwater, 36:51:12, 11th place	Furnace Creek, 35:53:48 31st place	=72:45:00 total time
Monica Scholz, "Scarlett Fairy Cup" Jerseyville, ON, Canada, 37	2004	Badwater, 29:22:29, 1st female, 3rd overall	Furnace Creek, 44:29:15, 1st female, 25th overall	=73:51:44 total time
Danny Westergaard, "Wiener Dog" Rolling Hills, CA, 50 (3rd DV Cup)	2009	Badwater, 35:51:24, 28th place	Furnace Creek, 39:54:25, 14th place place	=75:45:49 total time
Nickademus Hollon, "Horned Lizard" San Diego, CA, 19	2009	Badwater, 33:21:29, 18th place	Furnace Creek, 44:06:44, 24th place place	=77:28:13 total time
Michele Santilhano, "Shongololo" Menlo Park, CA, 38 (South Africa)	2008	Badwater, 39:42:23, 11th female, 29th overall	Furnace Creek, 38:01:42, 7th female, 42nd overall	=77:44:05 total time
Steve Teal, "Desert Duck" Phelan, CA, 42 (3rd DV Cup)	2007	Badwater, 44:16:27, 50th place	Furnace Creek, 34:16:04, 11th place	=78:32:31 total time
Steve Teal, "Desert Duck" Phelan, CA, 40	2005	Badwater, 43:56:20, 34th place	Furnace Creek, 35:39:52 29th place	=79:46:12 total time
Steve Teal, "Desert Duck" Phelan, CA, 43 (4th DV Cup)	2008	Badwater, 45:24:20, 56th place	Furnace Creek, 35:12:55, 26th place	=80:37:15 total time
Angelika Castaneda, "Cat" San Diego, CA, 56	1999	Badwater, 36:58, 1st female, 8th overall	Furnace Creek, 43:46:40, 3rd female, 18th overall	=80:44:40 total time*
Steve Teal, "Desert Duck" Phelan, CA, 41 (2nd DV Cup)	2006	Badwater, 42:29:16, 32nd place	Furnace Creek, 41:24:06 29th place	=83:53:22 total time
David Jackson, "Jackass" Lexington, KY, 43	2002	Badwater, 47:12:30, 25th place	Furnace Creek, 38:56:12 15th place	=86:08:42 total time
Del Scharffenberg, "Spider" Portland, OR, 52	1997	Badwater, 48:16, 13th place	Furnace Creek, 42:15:26, 10th place	=90:31:26 total time
Charlie Liskey, "Lizard" Somis, CA, 40	1996	Badwater, 58:26, 14th place	Furnace Creek, 39:32:08 17th place	=97:58:08 total time

(*To receive the Death Valley Cup plaque, these combined record times must be broken.)

FURNACE CREEK 508



"WHERE THE WEST IS WON!"

October 2-4, 2010
www.the508.com

adventureCORPS™

"We're Out There"



Shanna "Dik Dik" Armstrong, 7th place overall 2008 Badwater Ultramarathon finisher, en route to breaking the Death Valley Cup record at the 2008 Furnace Creek 508.

OFFICIAL RULES

General Race Rules

1.) There are three starting times for the 2010 AdventureCORPS Badwater Ultramarathon (6am, 8am, and 10am on July 12, 2010), but all racers in all groups are competing in the same race. Runners may attend only their assigned start time. Runners must check in at the start line, ready to race, 30 minutes prior to their start time. Starting Groups are assigned by the race director and are non-transferable. Split times will be collated throughout the race to maintain overall standings. There are only two divisions: men's and women's. The racer to arrive at the finish line in each division with the lowest overall time, based on their starting time, will be considered the winner.

2.) The race number must be worn on the front of the body, unmodified, unfolded, and visible at all times during the race. It may not be worn on the head or hat.

3.) The clock does not stop for any reason until the race course officially closes 60 hours after each designated official start time. All racers must leave the course by the 60th hour beyond their start time: Finishing, or remaining on the race course with the intent to continue, is not allowed after 60 hours.

4.) All runners must have passed, and be proceeding forward, beyond the following locations within the specified time cut-offs:

- Stovepipe Wells: within 15 hours of their respective start time (STRONGLY ENCOURAGED).
- Panamint Springs Resort: within 30 hours of their respective start time (MANDATORY).

Note: Failure to pass Panamint Springs Resort within the specified 30 hour time cut-off will result in disqualification. Runners MAY NOT continue under human power, officially or unofficially, unless they have continued beyond the Panamint Springs time station within thirty hours of their starting time.

Additionally, beyond Panamint Springs Resort, if it becomes clear that a runner will not be able to finish the race officially within the 60-hour time limit, that runner may be forced to withdraw from the course and the race prior to the actual conclusion of the 60 hours.

5.) Running must always be single file, on the far left side of the road or off the left side of the road, facing traffic (pacers, too).

6.) Racers must make their presence known at all Time Stations located along the route. Runner arrival times at Time Station will be recorded.

7.) The race ends at Mt. Whitney Portal. If you choose to hike to the summit, please remove any official race logos and be sure to have the appropriate permits from the Forest Service.

8.) Racers, crew, and staff must not litter, mar, or pollute the landscape or environment.

9.) All racers, crew and staff must display courtesy, good taste, decorum, and sportsmanship at all times. Nudity is specifically not allowed.

Legal and Bureaucratic Issues

1.) All racers must follow and complete the entire application and entry process, filling out all forms and paying all necessary fees.

2.) All racers must sign the Entrant Contract.

3.) All racers and all crew members must sign the Accident Waiver and Release of Liability / Release of Name and Likeness. Each entrant must also bring the properly completed Check-In Form and Medical History Form to Runner Check-In.

4.) All race vehicles must meet the minimum requirements of property damage and personal injury liability automobile insurance for the state of California. All vehicle drivers must be fully licensed.

5.) All racers and at least one crew member for each entrant must attend Racer Check-In and

all of the Pre-Race Meeting. Those racers who do not complete the scheduled check-in and attend the meeting will not be allowed to participate. No exceptions.

6.) All racers must be willing to submit to a drug urine test before, during, or after the race. If any USOC banned substances are detected, the racer will be disqualified from competition and listed as **DISQUALIFIED FOR DOPING** in the final standings of the race.

7.) All racers and crew must pay the Death Valley National Park Entrance Fee. Proof must be brought to Runner Check-In. Runners will not be allowed to check-in for the race without proof of paying the Park Entrance Fee.

8.) All entrants must bring one U.S. dollar (or more) in a sealed envelope to the Racer Check-In. Please write the runner number on the envelope. This envelope will not be returned and the money will be donated to charity.

9.) During Racer Check-In, all entrants must display a minimum of four satisfactory reflective vests and eight blinking red lights - which will be worn and utilized by the runner and crew during nighttime periods of the race. Runners without satisfactory quality, or quantity, nighttime safety equipment will be required to purchase additional gear at that time, IF any such gear is available.

10.) All applicants must be a minimum of 19 years in age when submitting an application to race.

11.) No TV, film, or video crew, person, producer, director or other broadcast media representative may accompany or cover any racer or the race itself without the specific written permission of the Race Director. All film crews must sign a Non-Exclusive Licensing Agreement and pay a Rights Fee. Additionally, Death Valley National Park and/or the U.S. Forest Service may also require payment of a filming fee and signature of a filming agreement.

Support Crew

1.) Each racer must be accompanied by a support crew comprised of at least one four-wheeled motor vehicle and two crew members—both of whom are legally licensed to drive and at least one of whom can speak English—at all times. Each racer must have his or her own personal support crew and vehicle; crew and support vehicles may not be shared, except informally in the spirit of the event, i.e., crews may lend assistance to other racers or crews. Race entrants may have no more than two support vehicles and no more than six crew members in total (including "unofficial" and "family cheering squads") at the race. This includes at the finish line: no more than six crew members and two vehicles may be present.

2.) Runners must progress under their own power without drafting, helping, pushing, supporting, or any other type of physical assistance. Runners may not use walking sticks, ski poles, or the like. So-called "cooling vests" or other types of artificial / technological cooling systems may not be worn or utilized by race entrants while making forward progress on the race course. Crew members may not carry an umbrella or shade cover for a runner.

3.) Runners may not be accompanied by more than one pacer at any given time while making forward progress on the race course. Additional crew members that are handing off supplies, or otherwise providing aid, to the runner and/or pacer must be off the roadway at all times (i.e. left of the white line on the shoulder) and may not run along with the runner. To be clear: if a runner is moving forward on the race course, **NO MORE THAN ONE** crew member may also be moving with, or near, the runner at the same time.

4.) Runners must not run abreast with other runners or with pacers. All running must be single-file. Pacers may not run in front of race entrants at any time.

5.) Crew members may not use illegal drugs, stimulants, or dope, as well as alcohol of any kind, during the race or at any official race events or activities.

OFFICIAL RULES

6.) Runners under the age of 60 may not be accompanied by pacers or moving crew members between Badwater and the Furnace Creek time station.

7.) Wheeled conveyances (other than a motorized support vehicle), including in-line skates, strollers, and bicycles, are prohibited on the course at all times. Likewise for hovercrafts and helicopters. Runners accompanied by any such conveyance will be disqualified.

Support Vehicles

1.) The California Motor Vehicle Code, and all local, county, and/or National Park Service laws, rules, and regulations, must be respected at all times. In particular, support vehicle drivers and crews are reminded that phones must only be operated by the driver with a hands-free device; seat belts must be worn by all vehicle occupants at all times while moving, and it is illegal to drive on a highway while displaying emergency flashers. For further information, consult the DMV Code.

2.) Support vehicles may not be wider than 78" in width, as stated in the manufacturer specifications. Small Cars, Minivans, and SUVs are recommended. Oversize SUVs, vans, and trucks, or other types of oversize vehicles are strongly discouraged, even as a secondary support vehicle. Motorhomes and RVs are specifically not allowed.

3.) Race entrants may have no more than two support vehicles and no more than six crew members in total (including "unofficial" and "family cheering squads") at the race. This includes at the finish line: no more than six crew and two vehicles may be present. Secondary support vehicles, if any, may not "caravan" with the primary support vehicle; secondary support vehicles are to be used for running errands, crew shift changes, and such. For safety reasons, and to make the limited shoulder parking available to all support crews, secondary vehicles may not generally be in the vicinity of the runner and primary support vehicle, except when passing off supplies and/or crew members.

4.) All support vehicles must have their headlights on whenever the engine is running, 24 hours a day, except as noted in Rule 11 in this section of the rules.

5.) All race vehicles must have highly visible signage on the back of the vehicle stating "CAUTION RUNNERS ON ROAD," as provided by the race organizers at Runner Check-In. Magnetic, reflective, professionally made signs for this purpose may be made to order by your local sign shop instead.

6.) All support vehicles, including secondary support vehicles, must have their racer's name and race number easily visible on all four sides. This type of sign can be made, for example, using yellow, white, or pink adhesive shelf paper with at least 6 inch letters. This should be done in advance of coming to Death Valley. Magnetic, reflective, professionally made signs for this purpose may be made to order by your local sign shop.

7.) Vehicle windows may not be blocked or obstructed with any signage, paint, or the like.

8.) Only one support vehicle is allowed for each racer at the Start Line before the race and then between the Start Line and the Furnace Creek time station during the race.

9.) Only one support vehicle is allowed to support each runner on the Whitney Portal Road. Any second support vehicle must drive directly from Lone Pine to the finish line, stopping NO MORE THAN ONCE, if necessary, to swap crew members or transfer supplies with the active support vehicle.

10.) Vehicles must "leapfrog" the runner at all times. Attempt to make each "leapfrog" at least one mile or more in length. Racers may not be "shadowed" (driving a vehicle at the runner's speed) and vehicles must not "caravan" (drive together, like a train, at any speed). Driving may never be at the speed of any racer. Driving must be done at the speed of traffic, never slowing down to encourage, talk to, or lend assistance to any racer

while moving. All assistance must be provided by pedestrian crew members; handing off of supplies from the vehicle is never allowed.

11.) Vehicles must be parked completely off the road surface whenever they are stopped (with all four tires right of the white line). Many areas of the route have very little shoulder for parking so care must be taken in choosing stopping places. When stopping/parking, vehicles may not stop on the left side of the road. All stopping/parking must be on the right side of the road, off the roadway. From 700pm to 600am each day (night) of the event, at all times while stopped or parked off the road, support vehicles must have their headlights turned off and emergency flashers turned on.

Safety and Medical Issues

1.) Remember, at all times and in all situations, safety is the most important issue. This means safety for racers, crew, staff, and the general public. The roads are not closed for this event and are, in fact, quite busy with tourist and local traffic.

2.) If a racer receives an I.V. (intravenous fluids) during the race, for any reason, then that racer is disqualified and must withdraw from the race and the race course.

3.) From 700pm to 700am each day (night) of the event, while outside on the race course, all racers and all crewmembers/pacers must wear reflective material facing in all four directions, as well as blinking red lights facing front and rear. Racers and crewmembers are encouraged to wear reflective material during the day as well.

4.) Racers are responsible for both their own and their crew's actions; crews are responsible for both their own and their racer's actions.

5.) Always look and listen both ways before crossing the highways. Remember that drivers will not expect to encounter a racer or parked vehicle out on the course. Remember we are on public roads. Racers should not cross over the highway more than necessary; crew should cross the highway carefully to bring assistance to their racer.

6) All entrants and crew must study "Medical Risks in the Badwater Ultramarathon," "Dangers of Running in the Heat," and "The Dangers of Hot Weather Running".

Leaving the Course or Withdrawing

1.) Every inch of the course must be traveled by each racer. In the event of a routing error, e.g., wrong turn, the racer may be driven back to the exact original spot where he/she left the course and continue running from that location. There will be no allowance made for lost time or miles run in the wrong direction.

2.) If a racer needs to leave the course, his/her crew must note the exact location with a numbered stake in the ground. This numbered stake must be visible from the road in both directions. The racer must then resume the race from the same place that he/she left it. The numbered stakes will be provided to all runners at Runner Check-In. Racers may only leave the course for appropriate reasons such as rest or medical attention. Focus must be kept on the speedy completion of the course.

3.) If a racer withdraws, he/she or his/her crew must contact Race Headquarters or a Time Station immediately. Name, reason for withdrawal, time of withdrawal, and miles completed must be stated. All racers and crew who drop are encouraged - and expected - to come to the finish line and both post-race events to greet and celebrate with their fellow racers and crews.

4) All Emergency Evacuation costs for participants or crews will be borne by that person or their heirs. The race organizers are in no way liable or responsible for emergency evacuation.

Awards

1.) All racers who begin the event will receive up a Badwater Ultramarathon race t-shirt, hat, Race Magazine, and a goodie bag. All racers who officially complete the event within 60 hours will receive a commemorative certificate, a finisher's medal, and a finisher's t-shirt. All racers who officially complete the course

OFFICIAL RULES

within 48 hours will also receive a commemorative Badwater Ultramarathon buckle.

Rule Enforcement and Penalties

1.) Race rules are designed to provide a safe and fair experience for everyone involved and to help ensure our ability to produce the race again next year.

2.) Major rule infractions by racers or their crew, especially those regarding "cheating," will result in immediate disqualification of the racer.

3.) Other, lesser offenses will result in the following cumulative time penalties:

First Penalty: One Hour

Second Penalty: Disqualification

4.) Time penalties are imposed by stopping at the final Time Station in Lone Pine to serve his/her time. The race and clock will continue while the penalized racer waits out his/her penalty time. A Race Official will be present to oversee this process.

5.) The Race Director has the authority, at any time, to overrule any rule or invent a new rule based on extenuating, unforeseen, and/or unusual circumstances and/or to maintain the integrity and fair play necessary for the successful completion, and continuation, of the race. The Race Director has ultimate authority in regards to all rules, their interpretation, and their enforcement. There is no "appeals committee" nor an "appeals process." All entrants in the race, and their support crews, willingly acknowledge this fact, as well as all other race rules, by attending the race in any capacity.

6.) In all cases and circumstances, it is the intent, and spirit, of the rules which will govern their implementation and enforcement.

Finally

1.) Have fun and keep smiling!



A family affair: Elizabeth Jefferson, Chris Kostman, Keith Kostman, Thalia Kostman, Poosa Kostman at the 2009 start line.

2010 OFFICIAL RACE ROSTER

6:00 AM START

#	M/F	Age	Name	City	State	Country	Nationality
19	F	51	Alexander, Lorie	Vernon	BC	Canada	Canada
56	M	23	Anstick, William	Auburn	AL	USA	USA
75	M	75	Denness, Jack	Rochester	Kent	UK	UK
34	F	34	Dockendorf, Connie	North Las Vegas	NV	USA	USA
61	M	53	Doggett, Jesse	Mesa	AZ	USA	USA
15	F	49	Farar-Griener, Shannon	Hidden Hills	CA	USA	USA
63	M	41	Grimm, Paul	Littleton	CO	USA	USA
58	M	60	Jensen, Daniel	Sioux Falls	SD	USA	USA
74	M	51	Marinsik, Dan	San Jose	CA	USA	USA
48	M	47	McKinney, Frank	Delray Beach	FL	USA	USA
54	F	54	Otero, Monica	Santana de Parnaiba	Sao Paulo	Brazil	Brazil
88	M	59	Parker, Ian	Irvine	CA	USA	UK
89	M	39	Portera, Anthony	White Plains	NY	USA	USA
66	M	47	Posner, Kenneth	New York	NY	USA	USA
68	M	41	Ratliff, Doug	San Antonio	TX	USA	USA
70	M	34	Recore, Brian	Yuba City	CA	USA	USA
71	M	54	Ricca, Wagner	Diadema	Sao Paulo	Brazil	Brazil
72	M	55	Rios, Francis	Saint Parres Les Vaudes	Aube	France	France
31	M	45	Smith, James L.	Superior	CO	USA	USA
22	M	59	Ulrich, Marshall	Idaho Springs	CO	USA	USA
46	M	46	Walker, David	Auckland	Auckland	NZ	NZ
12	M	68	Webb, Arthur	Santa Rosa	CA	USA	USA
73	M	59	Weiss, Erhard	Siselen	BE	Switzerland	Germany
80	M	38	Welch, Tim	Poulton-le-Fylde	Lancashire	UK	UK

8:00 AM START

#	M/F	Age	Name	City	State	Country	Nationality
30	M	30	Adams, James	London	Lon	UK	UK
50	M	22	Anderson, Collin	Salt Lake City	UT	USA	USA
57	M	31	Aro, Matthew	Duluth	MN	USA	USA
35	M	35	Benjamin, Elad	Raanana		Israel	Israel
38	M	41	Branco, Ariovaldo	Praia Grande	Sao Paulo	Brazil	Brazil
18	F	51	Cooper Imhof, Iris	Toronto	ON	Canada	Switzerland
47	M	47	Corfman, David	Cincinnati	OH	USA	USA
62	M	54	Finnell, Scott	Allison Park	PA	USA	USA
25	F	39	Fromm, Anita Marie	Colorado Springs	CO	USA	USA
55	M	59	Frost, Chris	Malibu	CA	USA	USA
59	M	52	Gleason, Jeff	Wexford	PA	USA	USA
39	M	23	Grossman, Dominic	Playa Del Rey	CA	USA	USA
64	M	43	Gryfe, Robert	Toronto	ON	Canada	Canada
21	F	37	Harvey-Jamieson, Susannah	Holland Park West	Queensland	Australia	Australia
86	M	46	Judd, Joe	Salida	CO	USA	USA
65	M	46	Marshall, Kelvin	Palm Beach	Queensland	Australia	Australia
49	M	48	Mason, Brendan	Wan Chai	Hon	Hong Kong	Australia
98	M	45	Ng, Hung-Kwong	Orlando	FL	USA	USA
40	M	40	Oralek, Daniel	Brno	Jihomoravsky kraj	Czech	Czech
23	F	43	Robinson, Gillian	Palo Alto	CA	USA	USA
41	M	43	Sanchez, Ray	Sacramento	CA	USA	USA
60	M	55	Straw, Keith	Malvern	PA	USA	UK
42	M	44	Teal, Steve	Phelan	CA	USA	USA
67	M	42	Toumazou, Vincent	Colomiers	Midi-Pyrénées	France	France
43	M	43	Villar do Amaral, Marcio	Rio de Janeiro	Rio	Brazil	Brazil
79	M	33	Vogel, Lane	Duluth	GA	USA	USA
84	M	51	Westergaard, Danny	Rolling Hills	CA	USA	USA
53	M	55	Whalen, Mike	San Juan Capistrano	CA	USA	USA
81	M	42	Wiaderek, Markus	l'Île Bizard	QC	Canada	Germany

82	M	46	Woolley, Mark	Alhaurin de la Torre	Malaga	Spain	UK
83	M	42	Yucra, Iso	Millares	Millares	Bolivia	Bolivia

10:00 AM START

#	M/F	Age	Name	City	State	Country	Nationality
45	M	45	Adamson, Ian	Boulder	CO	USA	USA / Australia
14	M	37	Baluchi, Reza	West Hills	CA	USA	Iran
17	F	39	Barton, Michelle	Laguna Niguel	CA	USA	USA
99	M	37	Belitu, Adrian	Chicago	IL	USA	Romania
36	M	36	Deshates, Eric	Gatineau	QC	Canada	Canada
5	F	35	Donaldson, Jamie	Littleton	CO	USA	USA
28	M	28	Elson, James	London	Lon	UK	UK
1	M	41	Farinazzo, Marco	Resende	Rio	Brazil	Brazil
33	M	33	Freeman, Jimmy Dean	Los Angeles	CA	USA	USA
100	F	46	Gardner, Connie	Medina	OH	USA	USA
29	M	41	Geerdes, Gregg	Annandale	VA	USA	USA
3	M	30	Gingerich, Zach	Aurora	IL	USA	USA
16	M	55	Hewitt, Tim	Greensburg	PA	USA	USA
20	M	20	Hollon, Nickademus	San Diego	CA	USA	USA
52	M	52	Horner, David	Hendersonville	NC	USA	USA
44	M	44	Iwamoto, Nobumi	Sumida-ku	Tokyo	Japan	Japan
95	M	58	Jones, David S.	Eagleville	TN	USA	USA
9	M	47	Karnazes, Dean	Ross	CA	USA	USA
32	M	32	Krogmann, Brian	Los Angeles	CA	USA	USA
2	M	38	Lopez, Oswaldo	Madera	CA	USA	Mexico
8	M	42	McCarthy, Philip	New York	NY	USA	USA
76	M	58	Mendoza, Adalberto	Los Angeles	CA	USA	Mexico
6	M	42	Pacheco, Jorge	Los Angeles	CA	USA	Mexico
37	F	37	Palmiero-Winters, Amy	Hicksville	NY	USA	USA
24	M	28	Ploskonka, David	Baltimore	MD	USA	USA
7	F	49	Reed, Pam	Tucson	AZ	USA	USA
85	F	35	Springman, Alisa	Mercersburg	PA	USA	USA

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**PHOTOS FROM BADWATER
ULTRAMARATHON 2009**

- 1 Nick Hollon, age 19
- 2 Leigh Corbin
- 3 Kelvin Marshall
- 4 Frank McKinney and crew
- 5 Pam Reed and Jamie Donaldson
- 6 Race staffers John Wiley, CHP Scott Wall, Phil Marchant, Mike Henebry
- 7 CK with Dean K's Crew:
Michelle Barton, Pam Everett,
Keira Henning





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Jamie Donaldson, on her way to claiming the 2010 Badwater women's division title. Photo: Bob MacGillivray



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