

BADWATER®



May 2017





Founded in 1984 by yours truly, AdventureCORPS®, Inc. is an athlete-run producing the world's toughest races and promoting the world's toughest brand, BADWATER®.

Welcome to the Spring 2017 edition of BADWATER Magazine, our semi-annual publication that celebrates the life "out there" with a particular emphasis on running long distances in exotic, challenging locations.

Adventure is our way of life, so we are extremely pleased to host the 5th Badwater Salton Sea, the second leg of the Badwater Ultra Cup, on April 30 - May 1, 2017. This three-event series kicked off on March 18 with Badwater Cape Fear (see the other half of this magazine) and concludes July 10-12 with the STYR Labs Badwater 135.

A truly epic event in an otherworldly location, Badwater Salton Sea pits up to 105 of the world's toughest athletes, competing together on teams of either two or three, against one another, the route, and the elements.

Covering 81 miles (131km) non-stop from Salton Sea to Palomar Mountain and with a team ultra running format unique to this race, it is the one of the most demanding and extreme running races on the planet, one truly deserving of its "BADWATER" moniker.

The start line is the shoreline of the Salton Sea at Salton City, located at 234' (71m) below sea level in Imperial County. The race finishes at Upper Meadow Lodge on Palomar Mountain, San Diego County's almost tallest peak at 5500' (1676m) and the home of the world famous Palomar Observatory. The race course covers two major mountain ranges for a total of 9,000' (2743m) of cumulative vertical ascent.

We thank and salute the County of Imperial, County of San Diego, California Department of Transportation, and Anza-Borrego Desert State Park, whose staff—and permits—oversee this event. We thank all the AdventureCORPS staff for their hard work in hosting a smooth and successful race. We thank everyone involved with the event for their sense of adventure and unassailable commitment to sportsmanship, fair play, and esprit de corps.

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. Welcome, or welcome back, to the Badwater Family!

Yours in sport,

Chris Kostman

Race Director and Chief Adventure Officer

AdventureCORPS, Inc.

638 Lindero Canyon Rd. #311 Oak Park, CA 91377 USA

www.adventurecorps.com / www.badwater.com

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"Out There Since 1984"



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Ray Sanchez and Jared Fetterolf (Team J-RAY) en route to first place
overall and a new 2x record of 14:56:00. (See page 6 for all the
course records.) Sanchez has run on two winning teams in his two
BSS appearances, and is also a nine-time consecutive finisher of
the Badwater 135. Fetterolf also won Badwater Cape Fear in 2016,
en route to completing the Badwater Ultra Cup. Plus they are both
good looking, super nice guys. ;-) Photo by Chris Kostman, shot on
Kodak Portra 800ASA 35mm film with a Rokkor 500m mirror lens
and Minolta XG-M.

Design and Layout by Kevin Fung, kevin@kfungdesign.com



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all night or take a week off
after working with us!



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SCHEDULE OF EVENTS

Friday, April 28, 2017

300pm: Optional but Encouraged: Meet at Hotel Lobby to carpool to the trailhead near the start of the Montezuma Grade Road. (Each is responsible for their own transportation; please carpool.)

330pm: Optional: Depart the trailhead to hike of some or all of the eight-mile California Riding & Hiking Trail which ascends over 3500 feet from Borrego Springs almost to the tiny hamlet of Ranchita. This trail is included within the BADWATER SALTON SEA race route from mile 40.55 to mile 48.8. Many BWSS competitors will join this hike in order to get a preview of the steepest climb within the race. Estimated hiking time 2.5 to 3 hours. It may be HOT, so bring adequate water, electrolytes, clothing, sunscreen, and hat. It's an 8-mile, uphill, one-way hike, so drivers and vehicles to pick hikers up at the top of the trail (just below the summit of Montezuma Valley Road, which is 1.7 miles before the Ranchita Store) will need to be coordinated by all involved. (Shorter route options are also possible.)

630 to 700pm: Conclude hike at western end of trail. (Transportation back from there must be arranged by all involved.)

Saturday, April 29, 2017

700-830am: Optional: Road and trail run around Borrego Springs past many of the incredible metal sculptures which dot the landscape and are known as Galleta Meadows. Depart on foot from hotel lobby at 700am. (Approximately six miles with several stops for photos.)

1000am: Optional: Meet at Hotel Lobby to carpool to Salton City to visit the start line area and first 35 miles of the Badwater Salton Sea race route.

1030am: Depart for Salton City. (All are responsible for their own transportation. Please carpool.)

300-400pm: Runner Check-In and Photos

400-500pm: Pre-Race Meeting

Sunday, April 30, 2017

0500 Runners/Crews must depart Borrego Springs to the start line.

0530 Civil Twilight (first light in the sky)

0556 Sunrise

0600 Absolute deadline to arrive at the start line at: 905 Sea Port Ave, Salton City, CA 92274

0630 RACE START

0955 Moonrise (Waxing Crescent with 25% of the Moon's visible disk illuminated.)

1530 Time Cut-Off at Mile 35.23

1730 Time Cut-Off at Mile 40.6

1924 Sunset

1950 Civil Twilight (no light left in the sky)

Monday, May 1, 2017

0009 Moonset

0534 Civil Twilight (first light in the sky)

0600 Sunrise

1030 RACE COURSE CLOSSES (28 Hour Limit)

1030 Post-Race Brunch, at the finish line

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The fourth annual **Badwater Salton Sea** 81-mile ultramarathon was held May 1-2, 2016. After three years with a race field of about 50 runners, the 2016 race saw 89 runners on the start line! This remarkable event challenges up to 35 teams of two or three ultrarunners—running together as duos or trios for the duration, NOT in a relay—to tackle an unimaginable traverse of Southern California deserts and mountains.

The route covers 81 miles (130km) non-stop from below sea level at the shoreline of the Salton Sea, across, up, and over Anza-Borrego Desert State Park, to the top of Palomar Mountain with a dramatic view of the Pacific Ocean. There is a total elevation gain of over 9000 feet. Eight of the 81 race miles pass through Anza-Borrego State Park on a single track trail known as the California Riding and Hiking Trail from near Borrego Springs to near Ranchita, creating a race route which is a mix of road and trail.

Pre-race activities include a run past the metal sculptures dotting Borrego Springs, a hike on the mountain trail section of the race, a visit to the “fish skeleton beach” shoreline of the Salton Sea, and more!





COURSE RECORDS

Team	Names	Category	Year	Grp	Elapsed
		2x Men		20+	
J-RAY	Jared Fetterolf & Ray Sanchez	2x Men	2016	30+	14:56:00
100MileClub.com	Joseph Nakamura & Robert Whited	2x Men	2015	40+	16:08:03
Prickly Pair	Rober Buruss & Keith Straw	2x Men	2016	50+	23:58:00
		2x Mixed		20+	
Echo 37	Jane Cyphers & Will Gane	2x Mixed	2016	30+	21:18:00
Los Aventureros	Nelva Valladares & Mark Matyazic	2x Mixed	2016	40+	16:02:00
DingoBlonde	Amy Costa & Mark Matyazic	2x Mixed	2016	50+	17:33:00
		2x Women		20+	
Wingman Foundation	Monique Jacques & Brittany McCullough	2x Women	2016	30+	18:55:00
Sweat It Out	Molly Troy & Cheryl Tulkoff	2x Women	2016	40+	19:27:00
Beast Mode	Catra Corbett & Teresa Hillstrom	2x Women	2016	50+	22:36:00
		3x Men		20+	
Disney McFarland USA	Carlos Cabanillas, Diego Diaz, Oswaldo Velasquez	3x Men	2015	30+	15:09:42
Miami Thrice	Bradford Lombardi, Dave Krupski, Grant Maughan	3x Men	2013	40+	17:02:00
Yinzers	Keith Straw, Jeff Gleason, Bill Thompson	3x Men	2014	50+	19:39:00
Youth & Inexperience	Mike Arnspiger, Bob Becker, Keith Straw	3x Men	2015	60+	25:30:53
		3x Mixed		20+	
ULTRA University	Elizabeth Koczek, Trasia Phan, Iso Yucra	3x Mixed	2013	30+	21:12:08
Neopolitan	Charlie Engle, Meredith Dolhare, Mosi Smith	3x Mixed	2013	40+	20:20:26
Bayou Burners	Pamela Chapman-Markle & Frank Sizemore	3x Mixed	2016	50+	22:34:00
		3x Women		20+	
		3x Women		30+	
The Dharma Buns	Boni Collins, Jodi Samuels, Jodi Weiss	3x Women	2015	40+	22:37:40
		3x Women		50+	





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THE OFFICIAL CHARITIES

THE OFFICIAL CHARITIES OF ADVENTURECORPS ARE THE CHALLENGED ATHLETES FOUNDATION, MAJOR TAYLOR ASSOCIATION, CARING HOUSE PROJECT FOUNDATION, AND BALD HEAD ISLAND CONSERVANCY. THE GOAL AND PURPOSE OF OUR EVENTS IS TO RAISE FUNDS FOR, AND AWARENESS OF, THESE WONDERFUL AND IMPORTANT ORGANIZATIONS.



The Challenged Athletes Foundation was created on the belief that people of all abilities should have the opportunity to pursue a life full of physical activity and of sports. Be they recreational or in pursuit of a gold medal at the Paralympic Games, people with a physical disability are limited only by their access to funding. Since 1994, CAF has raised over \$76 million—allowing the Foundation to satisfy thousands of funding requests from challenged athletes in all 50 states and across the globe.

Over eighty cents of every dollar raised by CAF provides funding and programs that get challenged athletes into the game. Whether it's a \$2,000 handcycle, helping underwrite a \$15,000 running prosthetic or arranging enthusiastic encouragement from a mentor who has triumphed over a similar injury, CAF's mission is clear: give those with the desire to live active, competitive lifestyles every opportunity to compete in the sports they love.

Since 2002, AdventureCORPS has raised over \$350,000 for CAF, and AdventureCORPS athletes have raised equally impressive sums!

Website: www.challengedathletes.org



The Bald Head Island Conservancy was founded on Bald Head Island, NC in 1983 with a focus on barrier island conservation, preservation, and education. The Conservancy sponsors and facilitates scientific research that benefits coastal communities and provides numerous recreational and educational activities to the public. In coordination with various organizations, partnerships, and collaborations, the Conservancy has led the nation in conservation and research efforts and is uniquely poised to become a leader in Barrier Island Conservation world-wide.

Badwater fans and race participants will appreciate that BHIC cares for the pristine setting for the Badwater Cape Fear race route and its role as a sea turtle nesting site and sanctuary. The Conservancy also serves as the host and finish line for our event. As such, our goal is to raise \$10,000 to purchase one of the special UTV vehicles which BHIC uses to patrol the beach and care for sea turtle nesting sites.

Website: www.bhic.org



Since 2014, AdventureCORPS is proud to recognize **Caring House Project Foundation** as an Official Charity and support their efforts. Founded by ten-time Badwater 135 veteran Frank McKinney, and based on the principal that "stability begins at home," CHPF provides shelter to the world's most desperately poor and homeless by building entirely self-sufficient villages in the poorest county in the world, Haiti.

As of today 10,616 have been provided with a new concrete home, and countless more are alive because of CHPF's efforts. In 2017 CHPF will complete its 24th self-sufficient village in Guimbi, Haiti. That's right, 24th self-sufficient village in 21 Haitian cities in last 14 years! Thank you for all you do Frank and Nilsa!

Website: www.chpf.org



**620 MILES.
7 DAYS. 1 MISSION.**

Million Dollar Challenge is a seven-day, 620-mile journey down the breathtaking California coastline from San Francisco to San Diego. This **exclusive, first-class** and **fully supported ride** includes stops in California's most stunning coastal towns. Conquer this heart-pounding route while riding alongside the challenged athletes your fundraising dollars support.

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ABOUT CHALLENGED ATHLETES FOUNDATION®

It is the mission of the Challenged Athletes Foundation® (CAF) to provide opportunities and support to people with physical challenges, so they can pursue active lifestyles through physical fitness and competitive athletics. CAF believes that involvement in sports at any level increases self-esteem, encourages independence and enhances quality of life. **CHALLENGEDATHLETES.ORG**



ENVIRONMENT

AdventureCORPS events happen not in a man-made stadium, but in the real world “out there.” We care deeply about the natural world for we are intrinsically linked with it and because we want to enjoy these events in their awesome natural settings for a long, long time.

As such, we joined **One Percent For The Planet** on July 1, 2008, a growing global movement of more than 1200 companies that donate at least 1% of their sales to a network of more than 3600 approved environmental organizations worldwide. Therefore we donate at least 1% of total revenues (in other words, “off the top,” not just 1% of profit) to environmental causes. This is in addition to all the work we do on behalf of, and donations we make to, Challenged Athletes Foundation, Major Taylor Association, and Caring House Project Foundation, which are wonderful causes but not environmental in their focus. In the past ten years, we and our fellow One Percent For The Planet members have invested over \$100 million in positive environmental change.



In association with our membership in One Percent for the Planet, we have supported **The Conservation Alliance** since September, 2008. The Conservation Alliance is an organization of outdoor businesses whose collective contributions support grassroots environmental organizations and their efforts to protect wild places where outdoor enthusiasts recreate. Alliance funds have played a key role in protecting rivers, trails, wildlands and climbing areas throughout North America.



Membership in the Alliance is open to companies representing all aspects of the outdoor industry, including manufacturers, retailers, publishers, mills and sales representatives. The result is a diverse group of businesses whose livelihood depends on protecting our natural environment. Since its inception in 1989, the Alliance has contributed close to \$13 million to grassroots conservation groups throughout North America. The results of our funding have been remarkable. Alliance funding has helped to save more than 44 million acres, protect 2,945 miles of rivers, stop or remove 26 dams, and purchase 10 climbing areas. There are now more than 190 member companies, and plans to disburse \$1.65 million in 2015.

In 2014, we began supporting the **Bald Head Island Conservancy** with the inaugural BADWATER Cape Fear race by focusing attention on the race route’s pristine setting as a sea turtle nesting area and BHIC’s role as a leader in barrier island conservation, preservation and education.



Additionally, we have championed other environmental causes including the **Los Angeles County Bicycle Coalition**, a nonprofit organization with over 1,000 members that engages cyclists through advocacy, education and outreach across the county. Founded in 1998, LACBC brings together the diverse bicycling community in a united mission to improve the bicycling environment and quality of life for the entire region. In 2011, we donated \$10,000 to LACBC to initiate and sponsor the Jim Swarzman Memorial Membership Drive, an effort that brought \$23,000 into LACBC.



AdventureCORPS joined the **Death Valley Natural History Association** as Life Members and recognized DVNHA as an Official Charity of AdventureCORPS from 2009 through 2013. DVNHA is a non-profit organization supporting education, research, and preservation in Death Valley National Park and Ash Meadows National Wildlife Refuge. Some of their efforts include DeathValley R.O.C.K.S. (bringing inner city kids to experience one of the largest outdoor classrooms in the world), Devil’s Hole Pupfish Recovery, Death Valley All Taxa Biological Inventory, plus they run the wonderful gift shops in the Park.



According to DVNHA, AdventureCORPS has paid for, at the minimum, “every need (sleeping bags, cooking fuel, transportation) for one Death Valley ROCKS school group (50-60 students, chaperones, and teachers) every year since 2009.” AdventureCORPS athletes have also supported this and other DVNHA causes! Additionally, through DVNHA, AdventureCORPS and our athletes have donated \$5000 to support the recently renovated Death Valley National Park Visitors Center, as evidenced by five “donor tiles” are in the Visitors Center (one per \$1000 donation.)



Founded by 10x Badwater veteran

Frank McKinney, the Caring House Project Foundation builds self-sufficient villages for the world's most desperately poor and homeless by providing housing, education, food, water, medical support & capitalism in Haiti, Honduras, Nicaragua, Indonesia, Africa & the United States.



What CHPF is doing?

This year Caring House Project will build its 24th self-sufficient village in the last 14 years in the small town of Guimbi, Haiti located about two hours north of the capital city of Port au Prince. By the end of 2017, a total of 10,616+ people will have been sheltered because of CHPF, and thousands more are alive because of our (and your) efforts.



Frank McKinney

How Can You Help?

Please visit www.chpf.org to donate today.

There are many different donation options to choose from (Housing, Schooling, Orphanages, Church/Community Centers, Medical Clinics, Renewable Food, Clean Drinking Water, and a Miscellaneous category).

www.chpf.org
561.662.4503

Borrego Springs Resort



The host hotel of BADWATER Salton Sea is the Borrego Springs Resort, located at 1112 Tilting T Drive, Borrego Springs, CA 92004. This is also the location for Racer Check-In and the Pre-Race Meeting on the day prior to the race, as well as for Time Station #2 located at Mile 35 during the race.

Borrego Springs Resort is an oasis of luxury nestled between the Anza-Borrego Desert and the foothills of the Santa Rosa Mountains. The Resort boasts a variety of recreational amenities, fine dining and comfortable accommodations all within ninety minutes of Palm Springs and San Diego.

In addition to golf, Borrego Springs Resort offers its guests a variety of recreational amenities to choose from including a full-service Spa Serenity with a privatized pool, a heated swimming pool, whirlpool spa, six lighted tennis courts and fitness center. More info at BorregoSpringsResort.com

Borrego Springs is also home to Galleta Meadows, featuring 130 full-size metal sculptures of prehistoric mammals, dinosaurs, wild horses, sabertooth tigers, and even a 350-foot long serpent, all designed by artist Ricardo Breceda and located on land provided by the late Dennis Avery. Providing an awesome setting in which to run and explore, it is open to the public 24/7 and free of charge. More info at GalletaMeadows.com



Salton Sea



In 1901, the California Development Company, seeking to realize the Imperial Valley's potential for unlimited agricultural productivity, dug irrigation canals from the Colorado River. Heavy silt loads, however, inhibited the flow and new residents of the valley became worried. This prompted the engineers to create a cut in the western bank of the Colorado to allow more water to reach the valley. Unfortunately, heavy flood waters broke through the engineered canal and nearly all the river's flow rushed into the valley. By the time the breach was closed, the present-day Salton Sea was formed.

One of the attractions of the Sea is the abundance of life, manifested in the hundreds of species of birds that reside in, or visit, this important wetland habitat, and the fish that inhabit the waters. That is why some scientists have called the Salton Sea "California's crown jewel of avian biodiversity" and perhaps was the most productive fishery in the world.

This abundance of wildlife is particularly critical given the decline of wetlands. Over 90 percent of the wetlands of California have been lost. As California's wetlands decline, the importance of the Sea as a habitat for inland wetland species increases. The Sea's habitats support up to 40 percent of the entire US population of the threatened Yuma clapper rail, 80 to 90 percent of the American white pelican, and 90 percent of the eared grebe.

Besides the opportunity for bird watching and for fishing, the Salton Sea and its immediate vicinity offer recreational opportunities including boating, camping, off-roading, hiking, hunting, use of personal watercraft and photography. One of the attractions, the Salton Sea State Recreation Area, has 1,400 campsites in five campgrounds, hundreds of picnic sites, trails, playgrounds, boat ramps and a visitors' center.

Salton Sea Statistics

The Salton Sea, located in the southeastern corner of California, is actually a lake which occupies a desert basin known as the Salton Sink. This body of water covers a surface area of 376 square miles, making it larger than Lake Tahoe and Mono Lake. In fact, the Salton Sea is the largest lake in California. The Sea's current elevation is about 227 feet below mean sea level, its maximum depth reaches 51 feet and its total volume is about 7.5 million acre-feet.

Excerpted from <http://saltonsea.ca.gov>: The Salton Sea Authority.

Photo by Chris Kostman near the race start line.



Anza-Borrego Desert State Park



Anza-Borrego Desert State Park is the largest state park in California, featuring 500 miles of dirt roads, 12 wilderness areas, and many miles of hiking trails provide visitors with an unparalleled opportunity to experience the wonders of the California Desert. The park is named for Spanish explorer Juan Bautista de Anza and the Spanish word borrego, or bighorn sheep. The park features washes, wildflowers, palm groves, cacti and sweeping vistas. Visitors may also have the chance to see roadrunners, golden eagles, kit foxes, mule deer and bighorn sheep as well as iguanas, chuckwallas and the red diamond rattlesnake.

The Park is located on the eastern side of San Diego County, with portions extending east into Imperial County and north into Riverside County. It is about a two-hour drive from San Diego, Riverside, and Palm Springs.

Most visitors approach from the east via Highways S22, S2, or 78. Visitors from San Diego via Highways 79 and 78 have the added pleasure of driving through the mountainous Cuyamaca Rancho State Park--quite a different experience from Anza-Borrego. The highways from the east climb to 2,400 feet or so and then descend about 2,000 feet to the valley. Where the highway breaks out of the high-country vegetation, it reveals the great bowl of the Anza-Borrego desert. The valley spreads below, and there are mountains all around. The highest are to the north--the Santa Rosa Mountains. The mountains are a wilderness, with no paved roads in or out or through. They have the only all-year-flowing watercourse in the park. They are the home of the peninsular bighorn sheep, often called desert bighorn.

There are more wonders in this desert than anyone could see in a lifetime, including wildflowers, which usually start blooming in force in late February or early March. Varieties of cactus bloom at all elevations but at different times, and for wildflower buffs they are the real prize. They tend to be "specimen" blossoms in colors ranging from red to yellow, and green. Other plants, such as the red chuparosa and the yellow brittlebush, show themselves as a mass of tiny flowers covering the surface of a shrub, or even a field of shrubs, or, in a good year, a broad expanse of pink sand verbena.

Excerpted from www.parks.ca.gov/?page_id=638

Photo by Ian Parker.

Palomar Mountain



Palomar Mountain is a mountain in the Peninsular Ranges in northern San Diego County. It is famous as the location of the Palomar Observatory and Hale Telescope, and known for the Palomar Mountain State Park.

The Luiseno Indian name for Palomar Mountain was “Paauw” and High Point was called “Wikyo.”

The Spanish name “Palomar,” in English meaning “pigeon roost,” comes from the Spanish colonial era in Alta California when Palomar Mountain was known as the home of Band-tailed Pigeons.

During the 1890s, the human population was sufficient to support three public schools, and it was a popular summer resort for Southern California, with three hotels in operation part of the time, and a tent city in Doane Valley each summer.

Palomar Mountain is most famous as being home since 1936 to the Palomar Observatory, and the giant Hale Telescope. The 200-inch telescope was the world’s largest and most important telescope from 1949 until 1992. The observatory currently consists of three large telescopes.

Palomar Mountain is the location of Palomar Mountain State Park, a California State Park. There are campgrounds for vacationers, and there was a campground for local school children until the San Diego Unified School District was forced to close it due to state budget cuts. The park averages 70,000 visitors annually. The campgrounds in the park were temporarily closed on October 2, 2011, due to state budget cuts, and the park was among 70 California State Parks threatened by budget cuts in fiscal years 2011-2012 and 2012-2013, but the park and the campgrounds remain open.

Palomar Mountain, especially in the state park area, is densely wooded with abundant oak and conifer tree species (pine, cedar, fir). Ferns are abundant everywhere in the shady forest. The forest is supported by annual precipitation totals in excess of 30 inches.

High Point in the Palomar Mountain range is one of the highest peaks in San Diego County, at 6,140 feet (1,871 m), surpassed by Cuyamaca Peak (at 6,512 feet (1,985 m)) and Hot Springs Mountain (the county’s highest point, at 6,533 feet (1,991 m)).

Excerpted from http://en.wikipedia.org/wiki/Palomar_Mountain

Photo by Chris Kostman. That white dot on the ridge line, a bit left of center, is the Observatory.

Upper Meadow Lodge



After 81 arduous miles, Badwater Salton Sea runners literally run up the gravel driveway and into the garage of the Upper Meadow Lodge, a private home that we rent out and use for both the finish line and the post-race brunch. It's an absolutely spectacular setting with a remarkable view! More info at UpperMeadowLodge.com.



GENERAL RACE RULES

1. All runners must check in at the start line, ready to race, at 06:00 and the race will begin at 06:30 on race day.

2. There are only two divisions: Duo or Trio, which are then sub-divided into men's team, women's team, and mixed team sub-categories.

3. The race number must be worn and visible at all times during the race. It can be placed anywhere obvious: hat, hydration pack, number belt, chest or back of shirt, etc.

4. New for 2016, there are mandatory intermediate cut-offs along the route. Specifically, all teams must have continued beyond the Borrego Springs Resort at mile 35.23 within nine hours of starting the race, while all teams must have continued onto the trail section which begins at mile 40.6 within eleven hours of starting the race. Teams / runners which exceed these deadlines will be declared DNF and MUST discontinue running and participation in the race.

5. All teams which begin the trail section of the race, which starts at mile 40.6, after 330pm (nine hours into the race) must carry a jacket, beanie, gloves, and a second set of new batteries for their light (or two separate lights / headlamps with new batteries), reflective gear and blinky lights, as well as cell phone, hydration and nutrition, and other supplies.

6. The clock does not stop for any reason until the race course officially closes after 28 hours. All racers must leave the course by the 28th hour (or sooner, if cut-offs are missed, as outlined above).

7. Running must always be single file and outside the white "fog line" on the edge of the roadway. Running should be off the left side of the road, facing traffic. Running well away from the pavement may be done on either side of the road, depending on which side is safest and has the best line of sight. The intent of the rules and the event's concept is that all running is done outside the white "fog line" and therefore never in any traffic lane (except during the first 6.7 miles through Salton City, where all running is down local roads.)

8. All members of each team must remain together while running (within 25 meters) at all times. Teams must make their presence known at all Time Stations located along the route and may only depart each Time Station together. Team arrival times at Time Stations will be recorded and made public. All members of each team must run the entire distance and cross the finish line together to be considered Official Finishers.

9. Teams which do not complete the course intact (i.e. one or two team members drops out along the way) will not be ranked, but the remaining team members are encouraged to complete the race

under all applicable race rules and they will be listed as official finishers (but not ranked). Finisher buckles will be awarded to all runners who complete the full 81-mile route within the guidelines of the race, but only intact teams of two or three will be ranked as Official Finishers.

10. Teams may not change division (for example, from Duo to Trio) any later than the day prior to the race. If a Trio has one runner drop out during the race, that team will NOT be re-categorized as a Duo. (The remaining two runners are encouraged – and expected – to finish the race, will be listed as Official Finisher(s) if they finish, but will not be ranked.)

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

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

3. 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.

4. All racers and all support team members must attend Racer Check-In and the Pre-Race Meeting.

5. All entrants must bring one U.S. dollar (or more) in a sealed envelope to 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.

6. During Racer Check-In, all entrants must display ONE satisfactory reflective vest and TWO blinking red lights PER RUNNER and PER CREW MEMBER. These must be worn and utilized by the runners and crew at all times while outside of vehicles during nighttime periods of the race. Runners without satisfactory quality, or quantity, nighttime safety equipment will not be allowed to compete.

7. All applicants must be a minimum of 18 years in age when submitting an application to race.

8. All racers must be willing to submit to a drug urine test before (at any point prior to the race, after being officially confirmed for

RACE RULES

entry), during (at any time), or after the race (up to 90 days after the conclusion of the race). If any WADA banned substances are detected, the racer - AND THEREFORE HIS OR HER TEAM - will be disqualified from competition, listed as DISQUALIFIED FOR DOPING in the final standings of the race, and banned for life from any AdventureCORPS event. Refusal to submit a urine specimen upon demand will also result in the racer being disqualified from competition, being listed as DISQUALIFIED FOR DOPING in the final standings of the race, and being banned for life from any AdventureCORPS event. Additionally, any BADWATER Salton Sea finisher who fails a drug test within 36 months after competing in any edition of BADWATER Salton Sea will be retroactively disqualified from any and all previous BADWATER Salton Sea races, removed from all BADWATER Salton Sea race results, as well as banned for life from any AdventureCORPS events.

9. 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 AdventureCORPS, Inc. All film crews must sign a Non-Exclusive Licensing Agreement and, potentially, pay a Rights Fee. Additionally, multiple government agencies may also require payment of a filming fee and signature of a filming agreement.

Support Crew and Assistance

1. Each team must be accompanied by a support crew comprised of no more than one four-wheeled motor vehicle and a minimum of two crew members - both of whom are legally licensed to drive and at least one of whom can speak English - at all times. Each team must have its own dedicated personal support crew and vehicle; crew and support vehicles may not be shared, except informally in the spirit of the event, i.e., support crews may lend assistance to other teams, racers, or crews. "Unofficial crews or crew vehicles" and "family cheering squads" are not allowed at the race.

2. Runners must progress under their own power without drafting, helping, pushing, supporting, or any other type of physical assistance, EXCEPT from their teammates. (Teammates may help one another in any reasonable manner, including pushing, pulling, towing, an the like.)

3. 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. Crewmembers may not carry an umbrella or shade cover for a runner, except while stationary.

4. Runners may not be accompanied by a crew member at any given time while making forward progress on the race course, EXCEPT during brief moments when supplies are being handed off. Crew members that are handing off supplies, or otherwise providing aid to the runners, must be off the roadway at all times

(i.e. outside the white line on the shoulder). Crew members may not run in front of race entrants at any time. Crew members may not accompany runners during the trail section of the race (mile 40.6 to mile 48.5.)

5. After mile 6.7 (leaving Salton City), runners must NEVER run abreast with other runners: All running must be single-file.

6. 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.

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 State Park 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 (not counting mirrors, fenders, or bumper which extend beyond the widest part of the actual vehicle body.) Small Cars, Minivans, and SUVs are recommended. Oversize SUVs, vans, and trucks, or other types of oversize vehicles are strongly discouraged. Motorhomes, RVs, "SportsMobiles," Sprinter Vans, and all types of Hummers are specifically not allowed.

3. All support vehicles must have their headlights on while driving, 24 hours a day, except as noted in Rule 8 in this section of the rules.

4. 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. (Teams may provide their own signage for this purpose, but its suitability will be inspected.)

5. All support vehicles must have their Team's designated race number easily and clearly visible on all four sides. The race number must be at least 11" (28cm) tall. A high-visibility "paint pen" may be used to mark the team number in the lower right corner of the windows on all four sides of the vehicle, so long as it does not obstruct the view through any of the windows. (The race organizers will have several paint pens available for this purpose.) Alternatively, or additionally, teams may choose to have custom signage made to identify their vehicle: Team numbers are mandatory; Team Names are optional, but encouraged.

6. Except as noted above, the view through vehicle windows may not be blocked or obstructed with any signage, paint, or the like. All vehicles will be inspected at the start line, and no team will be allowed to start the race which has any vehicle windows blocked excessively. If a team's support vehicle is found with blocked windows during the race, that team will be forced to stop and wait while the vehicle's windows are unblocked and signage properly mounted.

7. Vehicles must "leapfrog" the runner at all times. Generally speaking, each "leapfrog" must be at least THREE MILES or more in length during daylight, and ONE MILE or more in length during nighttime. Racers may never 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.

8. Vehicles must be parked completely off the road surface whenever they are stopped (with all four tires right of the white line, preferably at least 8 feet beyond 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, except in VERY LARGE pullouts at which the vehicle will be at least 15 feet from the edge of the roadway. From 700pm to 700am 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 must always be respected. The roads are not closed for this event and may be, in fact, quite busy with tourist and local traffic.

2. I.V.s (intravenous fluids) are not permitted during the race. If a racer receives an I.V. during the race, for any reason, then that racer is disqualified and must withdraw from the race and the race course. His or her teammates will also be disqualified, but may choose to finish the race course unofficially.

3. From 700pm to 700am each day (night) of the event, while out of doors on the race course, all racers and all crewmembers 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. We highly recommend the products from ZombieRunner.com.

4. Racers are responsible for their own actions, their teammates's actions, and their crew's actions; crews are responsible for both their own actions and their racers' 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 with no road closures or traffic monitoring. 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 Badwater Salton," "Dangers of Running in the Heat," and "The Dangers of Hot Weather Running" as published in this magazine and/or at www.badwater.com.

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 or team 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 and his or her team 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 or team withdraws, he/she or his/her crew must contact Race Headquarters or a Time Station immediately. Team number, 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 the post-race brunch 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 a BADWATER Salton Sea race t-shirt and Race Packet, as well as entry into the post-race brunch (for all racers and crew members per team).

2. All runners who complete the full 81-mile route within the guidelines of the race will receive the finisher's buckle and be recognized as Official Finishers, but only intact teams of two or three will be ranked.

3. All runners who complete the full 81-mile route within the guidelines of the race will qualify for Badwater Ultra Cup.

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

MEDICAL RISKS

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:

- o First Penalty: One Hour
- o Second Penalty: Disqualification

4. Time penalties are imposed at the finish line by adjusting finishing times.

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!

MEDICAL RISKS IN BADWATER SALTON SEA

This 81-mile race is one of the most physically taxing competitive events 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.

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 150-200 degrees. Proper foot care and 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 and potential health problems.

10th Annual Ultramarathon

MAY 20, 2017

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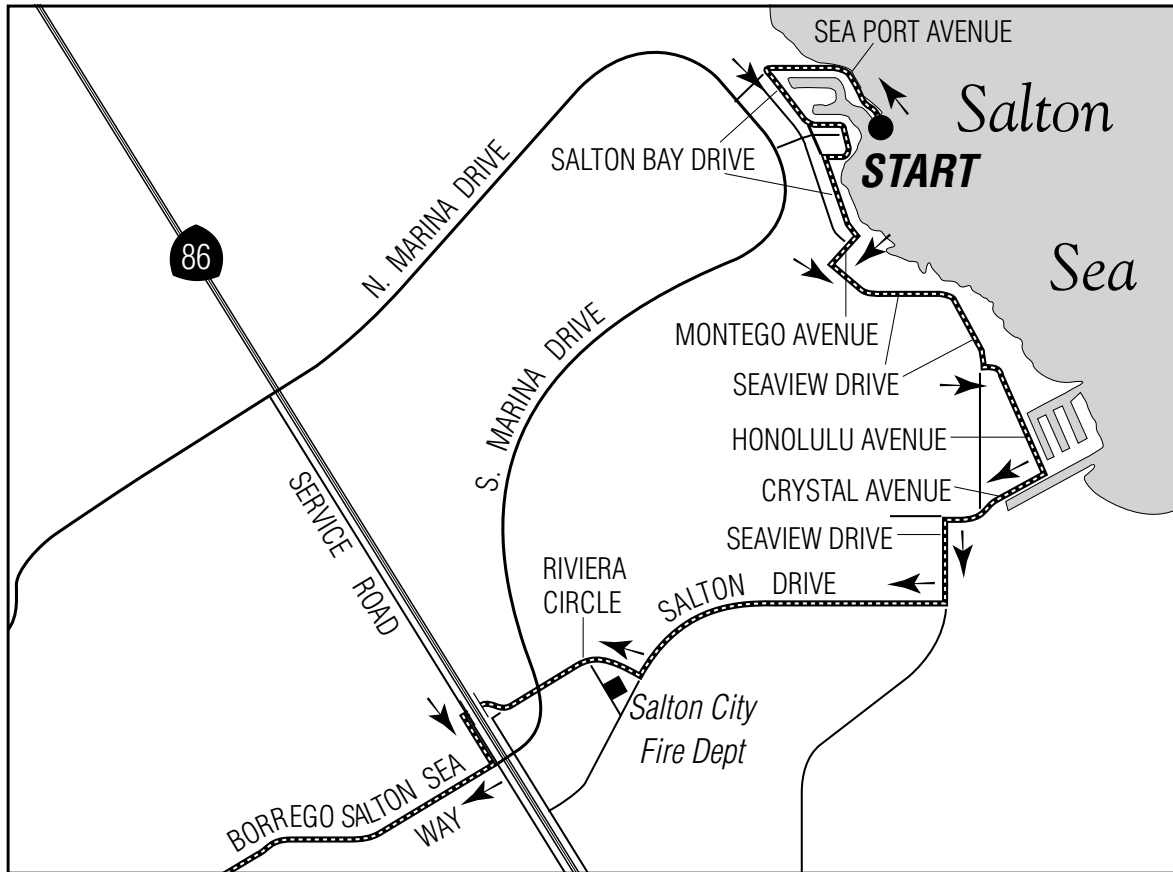
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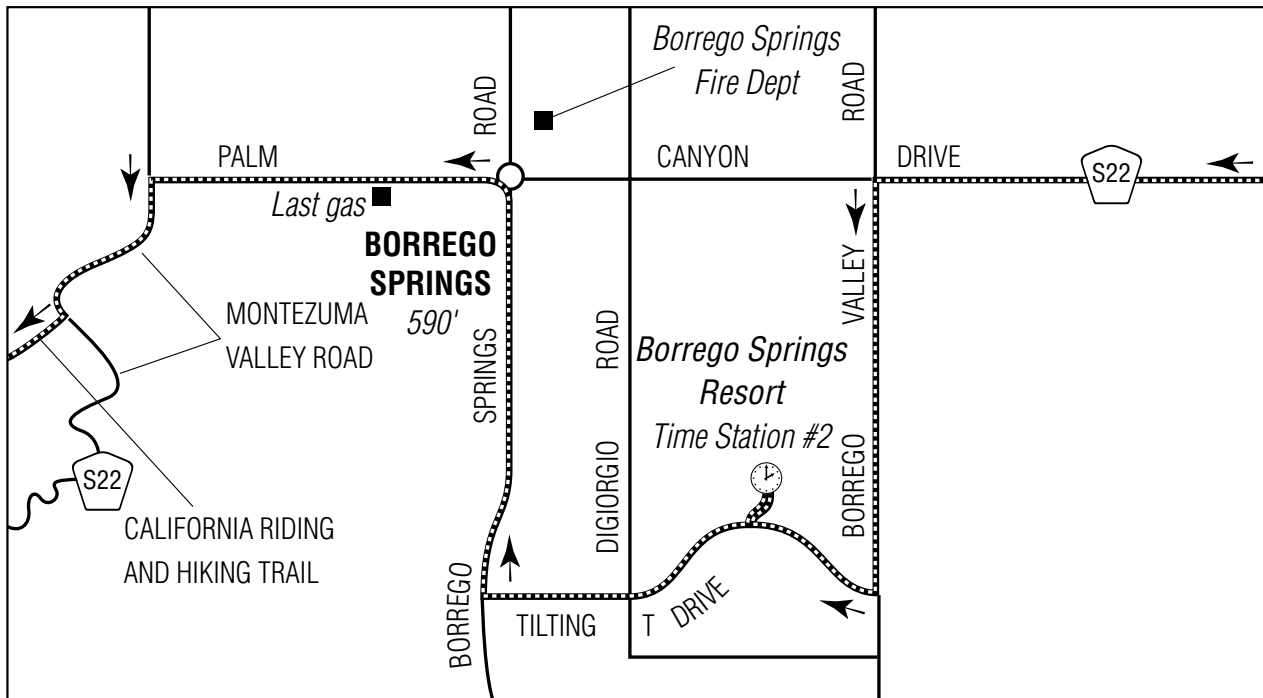




<i>Distance (ml.)</i>	<i>Landmarks</i>	<i>Time</i>
0	Salton Sea Start Line at end of Port Avenue	0630
0.65	Left Salton Bay Dr.	
0.93	Left Flamingo Ave.	
1.1	Right Yacht Club Dr.	
1.22	Road bears right	
1.34	Left Salton Bay Dr.	
1.7	Right Montego Ave.	
1.87	Left Sea View Dr.	
2.46	Stay right on Salton Bay Dr.	
2.83	Left Honolulu Ave.	
3.4	Right Crystal Ave. (T-int)	
3.9	Left Sea View Dr. (SS, T-in)	
4.27	Right Salton Dr. (SS)	
5.8	Right Riviera Circle	
6.34	Cross South Marina Dr. (SS)	
6.5	Veer right towards wash (off-road)	
6.65	Cross under CA 86	
6.7	Left Service Rd.	
6.93	Right Borrego Springs Seaway / S22 (Last Gas until Borrego Springs) Crews drive directly here from start line.	

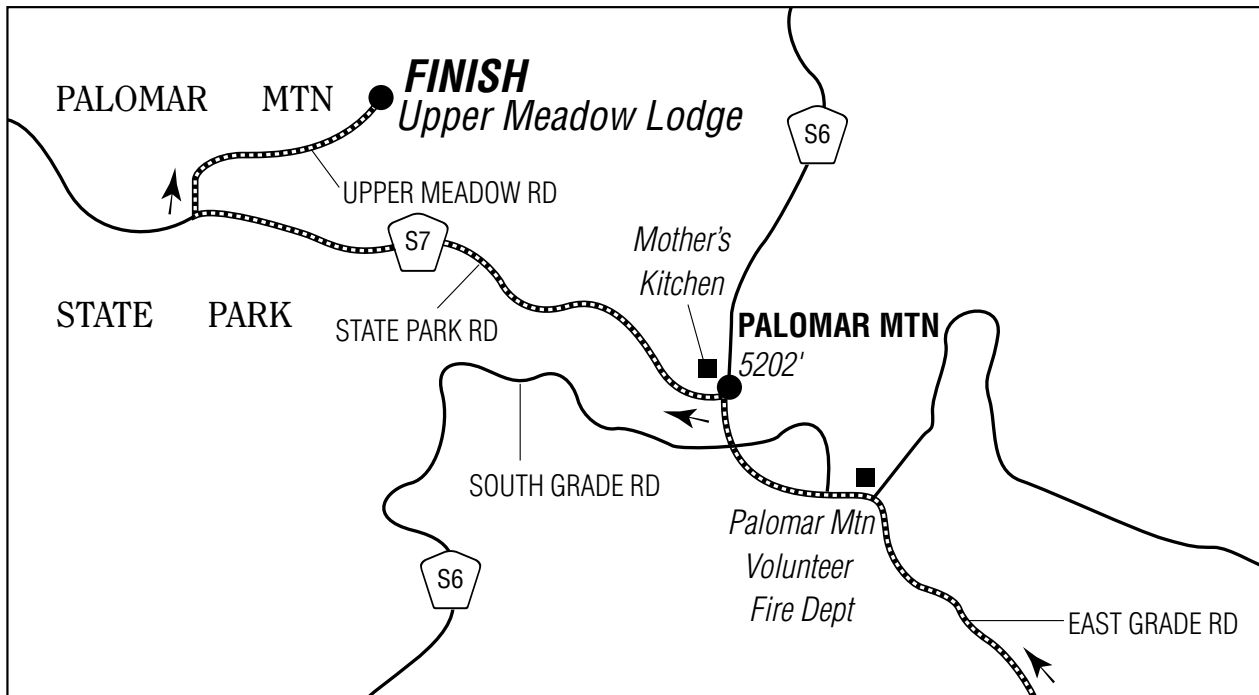
OFFICIAL RACE ROUTE

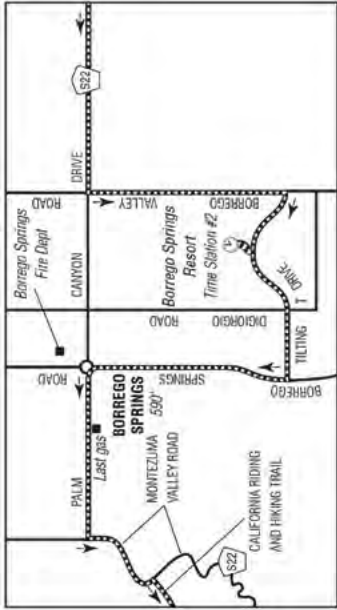
<i>Distance (ml.)</i>	<i>Landmarks</i>	<i>Time</i>
10.4	Cross Bantsch Trail (first climb)	
14.4	Time Station 1: USN Microwave Tower	
17.1	Big Scenic Overlook on Right	
19.3	Mile Marker 34	
23.15	Big walled pullout on left	
26.3	Mile Marker 27	
27.5	Pass Henderson Canyon Rd.	
28.3	Mile Marker 25	
29.15	Mile Marker 24	
30	Road bear right, becomes Palm Canyon Dr.	
31.35	Borrego Valley Airport & restaurant on right	
32.75	Left Borrego Valley Rd. (SS)	
34.46	Right Tilting T Dr.	
35.07	Right into Borrego Springs Resort	
35.23	Time Station 2: at resort lobby Runners must pass here by 1530!	
	U-turn here	
35.4	Right Tilting T Dr. (SS)	
36.6	Right Borrego Springs Rd. (SS)	
38.3	Left at Christmas Circle (runners may cut the corner)	
38.6	Pass The Mall: Café, Outfitters in back	
38.8	Last Chance for GAS!	
39.75	Left Montezuma Valley Road / S22	
40.55	Time Station 3: Right into dirt parking lot Runners must pass here by 1730!	
40.6	Enter California Right and Hiking Trail	
45.5	Pass east end of Culp Valley Fire Rd (connects to Montezuma Valley Rd)	



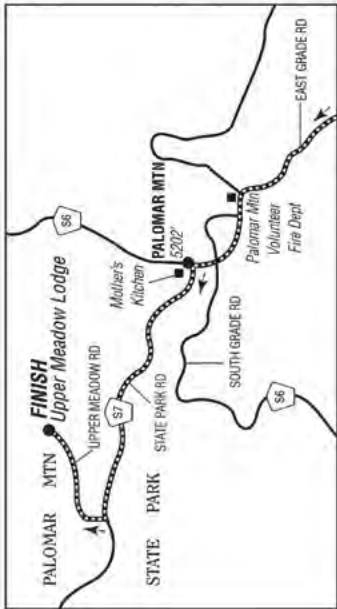
Support Crews: After runners depart up the California Riding & Hiking Trail, go back into Borrego Springs for any quick errands, otherwise drive uphill on Montezuma Valley Road and await your runners at the end of the trail (park on the right, just before the rocky summit of the road) or at the Ranchita Store. (Culp Valley Road, which cuts over to the trail, is a 4x4 track!)

<i>Distance (ml.)</i>	<i>Landmarks</i>	<i>Time</i>
48.5	Rejoin paved Montezuma Valley Road: turn right to go uphill	
48.8	Summit of Montezuma Valley Road	
50.2	Time Station 4: Ranchita Store on Right by "Rancheti"	
50.35	Fire Station	
55.25	Right S2 (T-int; yield)	
59.9	Left SR 79 (SS, T-int)	
61.6	Mataguay Scout Ranch on left	
62.2	100km Mark! Huge gravel pullout on right	
63.35	CA DOT "Lake Henshaw" HQ on right	
64.2	Right on SR 76	
67	Viewpoint / Call Box / Large pullout on right	
68	Time Station 5: Lake Henshaw Resort on left / Store / Fire Station	
Note:	Please Telephone Finish Line as Runners Pass Here!	
68.75	Right S7 / East Grade Road	
70.55	Mile Marker 1.8	
72.8	Mile Marker 4.0: View of the Pacific!	
76.8	Mile Marker 8.0	
79.9	Stay left at Fire Station (just after Mile Marker 11)	
80.1	Stay straight onto S6 at four-way stop sign	
80.13	Left on State Park Rd. just before store / Mother's Kitchen	
80.83	Turn right at 33350 Upper Meadow Road 92060	
81	Finish Line at Upper Meadow Lodge	

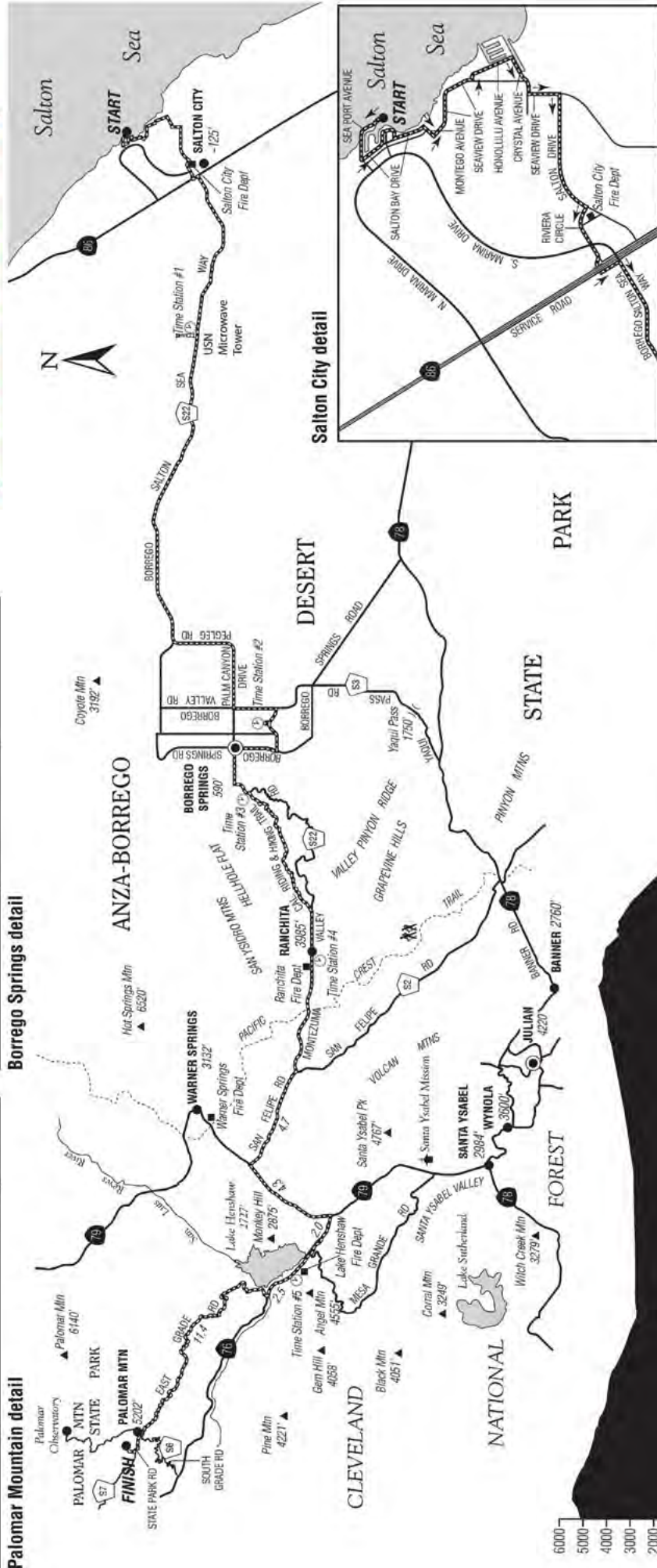




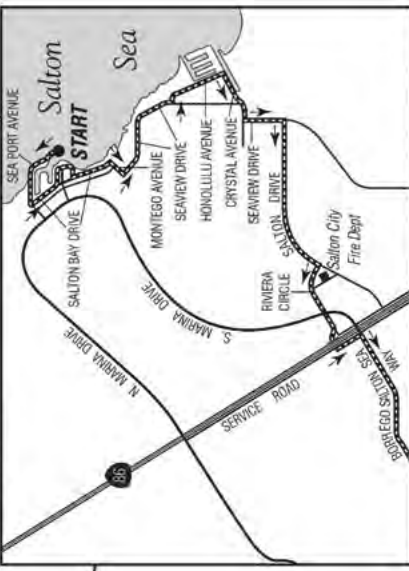
Borrego Springs detail



Palomar Mountain detail



Salton City detail

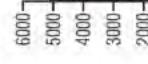


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BADWATER®



March 2017



Welcome to the Spring issue of BADWATER® Magazine and the Badwater® Cape Fear Ultramarathon!

With 50km and 51-mile race options, our Badwater® Cape Fear Ultramarathon features a twelve-mile warm-up on the car-free, one-lane-wide roads of Bald Head Island, followed by either 19 or 39 miles of running on the wild and secluded sandy beach between Cape Fear and Fort Fisher. The race is held along the Atlantic Seaboard with spectacular views of the Frying Pan Shoals to the east and wild and undeveloped marshlands to the west. Running this remote coast is a dramatic, invigorating, and inspiring manner in which to experience the Cape Fear region in all its grandeur!

What's more, Bald Head Island and Fort Fisher Recreation Area both welcome this unique event with open arms every year and are excited to have us return. Honestly, I have never met friendlier or more helpful people than the North Carolinians. This is a dream venue for this event promoter!

The folks at Bald Head Island Conservancy – Chris Shank, Poul Lindegaard, and Amber Walters in particular – have been ongoing sources of insights and wisdom and it has been an absolute pleasure to learn about, and support, the outstanding and important work that the Conservancy is doing on the island and beyond.

The staff at Village of Bald Head Island has been extremely supportive, as has all the staff with VBHI Public Safety, who are out in force to help us host a safe and successful race. Equally I thank Jeffrey T. Owen, Park Superintendent, and the rest of his staff, at Fort Fisher State Recreation Area for their support of the event and their management and oversight of the vast majority of the beach stretches of the race route.

Local businesses have been very supportive, too: Jeoffrey Nathan generously hosts a social mixer at his Coastal Urge store on the island. Claude Pope helps to rally the troops to embrace this event and will be catering the finish line food and post-race breakfast through his Maritime Market, under the direction of Chef Chip Pridgen. Local home rental staff including Trisha Howarth of Bald Head Island Limited, Tiffany Williams with Tiffany's Beach Rentals & Sales, Rick Nelson with Seabreeze Rentals, and Wendy Wilmot of Best of Bald Head Properties have all offered up their best possible rates and finest properties for the race entrants and their families and friends to enjoy.

We also welcome the returning support of Big Spoon Roasters of Durham, NC, makers of artisan nut butters and bars. Also for the second year, we have the support of Farm To Feet Socks of Mt. Airy, NC, committed to the goal of creating the world's best wool socks by exclusively using an all-American recipe: US materials, US manufacturing, and US workers.



Chris Kostman with Superintendent Jeffrey T. Owen and Ranger Alyssa Taylor of Fort Fisher State Recreation Area in 2016.

New for 2017, we are also pleased to welcome the sponsorship of American-made Fisher Space Pen, designed for astronauts and ideal for extreme athletes completing in all conditions. Also exciting to announce is the support of HydraPak, makers of the SpeedCup - designed for runners to carry while racing - and which allows us to convert this race to a "cup-free zone."

Our friends in Southport, just across the Cape Fear River from Bald Head Island, have also been very helpful, as have other NC mainlanders: Eleanor Erickson manages the Hampton Inn in Southport and has extended a special rate; she volunteers every year on race day with her son Jack. Other race day volunteers include Scott Kollins and Keith Weitz of Durham, both five-time finishers of our Silver State 508 ultracycling race in Nevada, as well as others from Bald Head Island, Southport, and the greater Wilmington area and beyond: we thank all of them for making this race super memorable and a great experience for everyone!!

We hope you enjoy this magazine, and the remarkable experience it documents!

Yours in sport,

Chris Kostman

Chief Adventure Officer and Race Director

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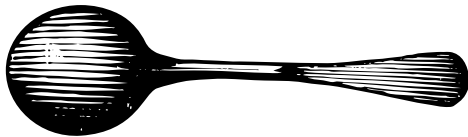
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Cover: The 2016 race gets underway beneath Old Baldy
(Photo by Chris Kostman). North Carolina's oldest lighthouse
celebrates its 200th birthday in 2017.
Visit www.oldbaldy.org for all the details.

Photos courtesy Chris Kostman, Robert Lee II,
Meredith Dolhare, Bald Head Island Conservancy, and others.

Design and Layout by Kevin Fung, kevin@kfungdesign.com



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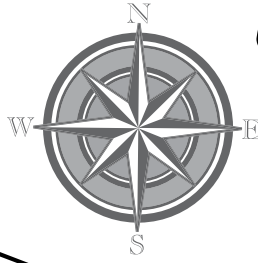
Wrightsville Beach
North Carolina

Myrtle Beach
South Carolina

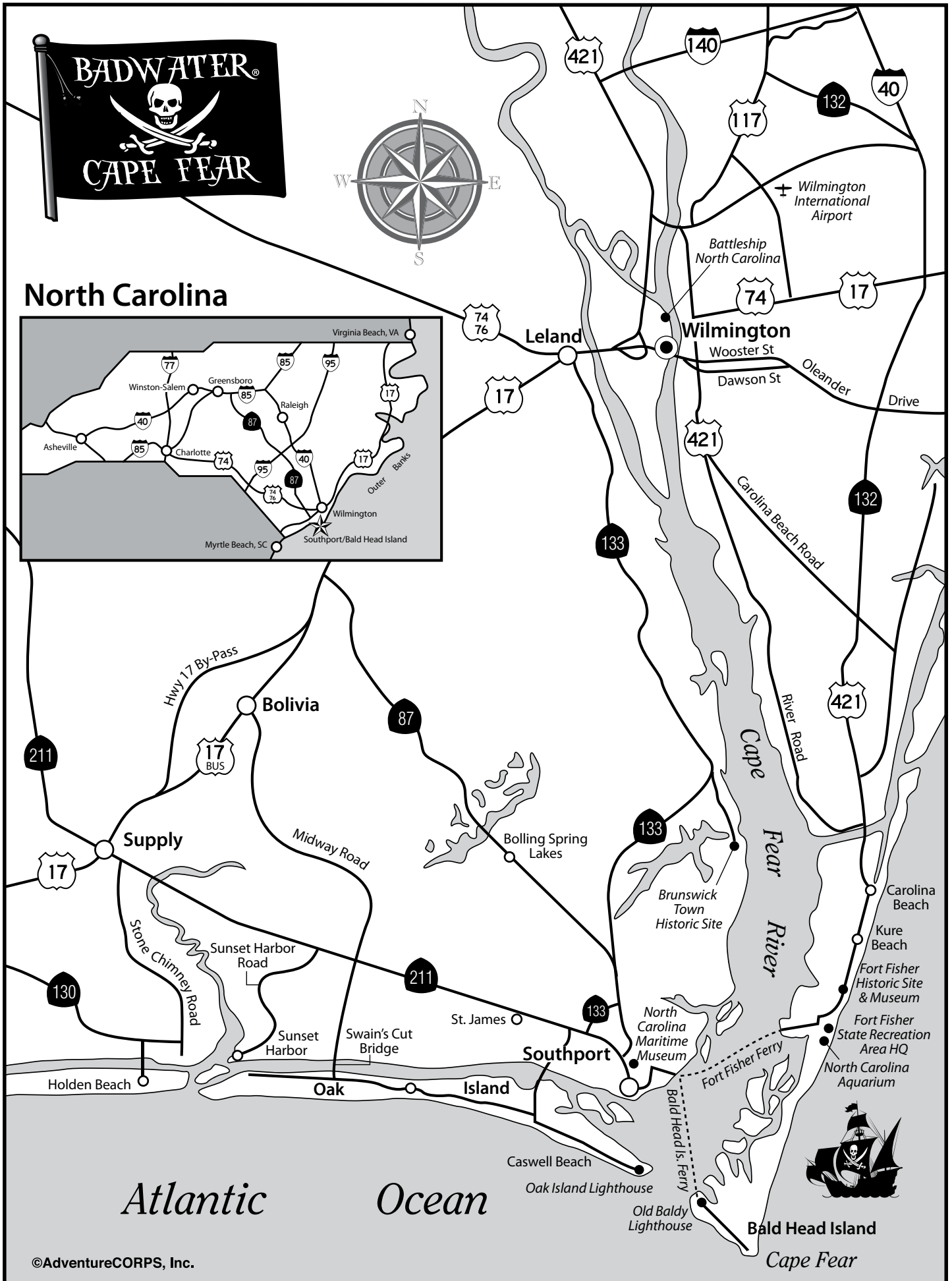
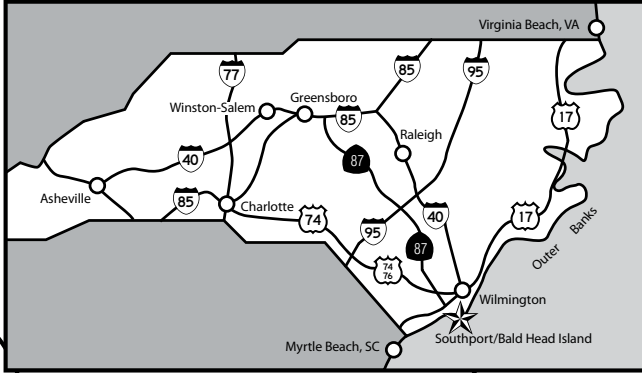


LOCATIONS ACROSS THE NATION

PALM BEACH * FT. LAUDERDALE * ST. PETERSBURG * CHARLESTON * ANNAPOLIS * RHODE ISLAND * RALEIGH



North Carolina



2017 SCHEDULE OF EVENTS

Friday, March 17

900am: No Host Coffee / Breakfast Meet-Up at Maritime Market. Come meet, or reconnect, with fellow Badwater family members while enjoying good drinks and food! There's no better way to start the day!

Suggestions: Enjoy a program with BHIC! ([See box.](#)) Also, climb to the top of Old Baldy Lighthouse! (The race will start at its foot and the view from up top is not to be missed! Info at OldBaldy.org)

300-500pm **FIRM**: Mandatory Racer Check-In at Bald Head Island Conservancy (BHIC). Location: 700 Federal Road (far eastern end of the island).

445-615pm: Social Mixer with drinks at Coastal Urge for all runners, staff, family, and friends. Location: Shops at Maritime Way, mid-island. See below for more information.

600pm onwards: \$10 Pasta Feed at Mojo's on the Harbor (no host).

Saturday, March 18

1209am: Moonrise (Waning Gibbous with 69% of the Moon's visible disk illuminated.)

600am PREFERRED or 700am: Runners not staying on Bald Head Island must depart via ferry from Deep Water Marina in Southport. (Ferries depart hourly from SPT to BHI on the hour from 600am to 1100pm on Saturdays. It is a 25-minute ferry ride.)

612am: Low Tide

620am: Sandpiper Coffee at Bald Head Marina opens extra early just for the runners and race fans coming over on the 600am ferry! Stop in for some java and treats!

653am: Morning Twilight (First light in sky)

715am: Late Check-In at the start line for runners who did not come over on Friday to do so.

718am: Sunrise

725am: 700am ferry from Southport arrives; it is a ten-minute walk from the ferry to the race start line at the lighthouse. If you are racing, you'd better hurry!

745am: 50km / 51.4 mile Race starts at Old Baldy Lighthouse.

915am: First runners pass 12-mile mark at BHIC.

1101am: Moonset

1155am (app.): First runners return to BHIC at 50km mark

1238am: High Tide

230pm (app.): First 51.4-mile finishers

345pm: Mandatory Cut-Off for 51.4-mile finishers to depart BHIC at mile 32 for their second loop to and from Fort Fisher

445pm: Mandatory Cut-Off for Officially Finishing the 50km Route (9 hour time limit)

601pm: Low Tide

722pm: Sunset

747pm: Evening Twilight (Last light in sky)

945pm: 51.4-mile Race Course Closes at BHIC (14 hour time limit)
1130pm: Final ferry departure from BHI (Ferries depart hourly from BHI to SPT on the half hour from 630am to 1130pm on Saturdays.)

Sunday, March 19

830-1000am: Breakfast Buffet at Maritime Market, mid-island: Breakfast is complimentary for all registered racers and volunteers, and available for a nominal charge to all family and friends. See below for location and information.

1030am: SUP or Kayak Paddling excursion via Coastal Urge. This will be almost immediately after breakfast. Participants can book, pay, and sign the waiver at the Coastal Urge store anytime on Friday or Saturday, or even Sunday morning during or right after the breakfast, if space remains. We will paddle on the north / marsh side of the island, not in the ocean or on the river, so it should be peaceful.

Other Activity Suggestions: Enjoy a program with BHIC! ([See box.](#)) Lay on the beach, go swimming, paddling, or kite surfing, cruise the island on a beach cruiser, shop at Coastal Urge, shop at the Conservancy's "Turtle Central" store, relax!

BHI CONSERVANCY PROGRAMS
(Visit [BHIC.org](#) to register!)

Friday March 17

9AM - 11AM Island Nature Tour
4PM - 5:30PM Ibis Sanctuary Exploration
8PM - 10PM Bald Head After Dark

Saturday March 18

9AM - 11AM Island Nature Tour
12PM - 1PM Touch Tank Time
1PM - 2PM Reptile Roundup
2PM - 3PM Hands-on Dissection
8:30PM - 10PM Cosmos & Cocoa

Sunday March 19

9AM - 11AM Island Nature Tour
12PM - 1PM Touch Tank Time

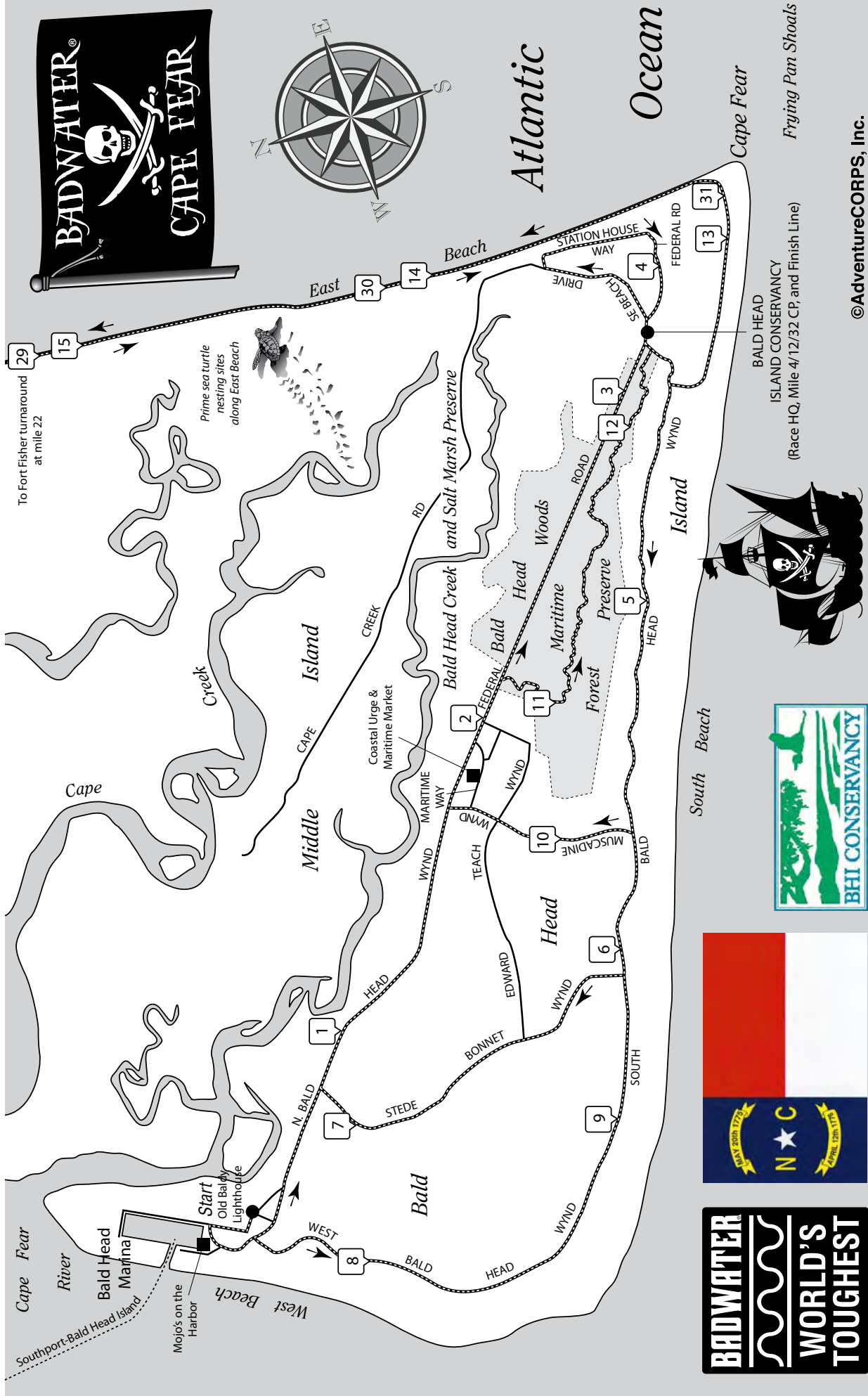
MARITIME MARKET

Location: 8 Maritime Way. Mid-island, near North Bald Head Wynd / Federal Road and Muscadine Wynd.

Main Number: 910-457-7450. Orders to-go, including pizza, family meals and platters: press 2, or dial direct: 910-269-2850. Online at [maritimemarketbhi.com](#)

Market Hours:

8am - 6pm, Monday-Saturday
Cafe Breakfast: 8am - 10:30am
Cafe Lunch: 11:30am - 2pm
Cafe Pizza: 11:30am - 2pm



To Fort Fisher turnaround at mile 22

Prime sea turtle nesting sites along East Beach



BALD HEAD ISLAND CONSERVANCY (Race HQ, Mile 4/12/32 CP, and Finish Line)

Frying Pan Shoals

©AdventureCORPS, Inc.



BADWATER CAPE FEAR ROUTE LANDMARKS

<i>Distance (mi.)</i>	<i>Landmarks</i>	<i>2nd Lap Distance</i>
0.0	Start at Old Baldy Lighthouse <i>Cross over creek bridge, then head east across island</i>	
3.2	CP1: Pass Race HQ at Bald Head Island Conservancy <i>Loop around east end of island via Station House Way</i>	
4.1	CP2: Pass Race HQ at Bald Head Island Conservancy Head west on South Bald Head Wynd	
6.1	Right / north on Stede Bonnet Wynd	
7.2	Left / west on North Bald Head Wynd	
7.6	Left / south on West Head Wynd	
8.6	Becomes South Bald Head Island Wynd (east)	
9.8	Left / north on Muscadine Wynd	
10.3	Right / east on North Bald Head Wynd / Federal Road	
10.8	Right / south onto North Carolina Coastal Reserve trail	
10.9	Stay left at Loop Trail sign	
11.0	Stay left onto Middle Trail	
11.6	Hard right onto East Trail	
12.15	Turn left at the end of trail onto road	
12.17	Turn right at stop sign	
12.21	CP3: U-turn at Race HQ at Bald Head Island Conservancy	(31.8) CP7
12.25	Head west, briefly, on South Bald Head Wynd	(31.84)
12.45	Turn left onto South Beach at Beach Access	(32.04)
12.55	Turn left / east onto South Beach	(32.14)
13.15	Turn left / north at Cape Fear onto East Beach	(32.74)
14.05	Pass final / northernmost BHI staircase / house	(33.64)
14.65	Bald Head State Natural Area sign in dunes	(34.24)
17.85	CP4: Enter Fort Fisher State Rec area beach fishing zone <i>NOTE: 4x4 vehicles possible (generally parked) and fishing lines on route</i>	(37.44) CP8
18.85	"Crossover 4" sign	(38.44)
19.8	"Crossover 3" sign	(39.39)
21.25	"No Vehicles Beyond This Point" sign	(40.84)
21.95	Turn left / west to Fort Fisher Ranger HQ wooden pathway	(41.54)
22.0	CP5: U-Turn at Fort Fisher Ranger HQ	(41.59) CP9
22.75	Enter Fort Fisher State Rec area beach fishing zone <i>NOTE: 4x4 vehicles possible (generally parked) and fishing lines</i>	(42.34)
24.25	"Crossover 3" sign	(43.84)
25.15	"Crossover 4" sign	(44.74)
26.18	CP6: End Fort Fisher State Rec area beach fishing zone	(45.77) CP10
30.0	Pass first / northernmost BHI staircase / house	(49.59)
30.4	Pass beach access, life preserver, 911 phone	(49.99)
30.9	Pass life preserver signpost at Cape Fear	(50.49)
31.55	Exit beach at Beach Access 35	(51.14)
31.65	Turn right onto South Bald Head Wynd	(51.24)
31.8	CP7: U-turn at Race HQ at Bald Head Island Conservancy <i>Repeat miles 12.21 to mile 31.8 as above, for a total of 51.4 miles (Second lap mileages are listed above in parentheses in the far right column.)</i>	(51.39) FINISH

COURSE RECORDS

First	Last	M/F	State	Year	Distance	Age	Age Grp	Record Time
Michael	Borst	M	WI	2015	51.4mi	21	20+	6:29:00
Frank	Gonzalez	M	SC	2015	51.4mi	38	30+	7:43:00
Timothy	Henderson	M	NY	2015	51.4mi	45	40+	7:48:00
Mark	Matyazic	M	CA	2016	51.4mi	51	50+	7:36:00
Keith	Straw	M	PA	2016	51.4mi	60	60+	8:21:00
Katherine	Plichta	F	NY	2014	51.4mi	27	20+	9:13:00
Noelani	Taylor	F	FL	2016	51.4mi	36	30+	8:04:00
Suzanne	Tulsey	F	NC	2015	51.4mi	40	40+	7:56:00
Amy	Costa	F	FL	2016	51.4mi	51	50+	10:00:00
Linda	Quirk	F	FL	2014	51.4mi	61	60+	12:48:00
Keith	Hanson	M	SC	2016	50km	29	20+	5:07:00
Nathan	Wick	M	DC	2016	50km	30	30+	4:16:00
Mark	McGeough	M	NC	2015	50km	45	40+	4:38:00
Michael	Schaffer	M	OH	2015	50km	53	50+	6:29:00
Roger	Lyons	M	OH	2016	50km	63	60+	6:07:00
Bob	Becker	M	FL	2016	50km	70	70+	6:58:00
Hillary	Dunnegan	F	VA	2015	50km	25	20+	8:00:02
Addie	Green	F	FL	2015	50km	35	30+	4:54:00
Suzanne	Tulsey	F	NC	2016	50km	41	40+	4:55:00
Pamela	Rickard	F	VA	2016	50km	53	50+	6:22:00



Jacob Hegge (#74: 6:29) and Michael Borst (#19: 6:37) of Wisconsin in 2015.

GENERAL RACE RULES

1. The clock, and the race, start at 745am for all entrants.
2. There are only two divisions: men's and women's, and two distances: 50km and 51mi.
3. The clock does not stop for any reason until the race course officially closes after 14 hours.
4. Wear your assigned race number on the front of the body, visible at all times.
5. All runners are strongly encouraged to carry a cell phone at all times.
6. All runners should keep in mind that the race route is largely remote and aid is provided at just three locations along the route; carrying water and food at all times is strongly encouraged.
7. All running while on pavement must always be single file, on the far left side of the road. Be careful of, and courteous towards, golf carts, shuttles, bicycles, and other vehicles and pedestrians.
8. Please make your presence known at the three checkpoints located along the route, each time you pass them.
9. Runners must progress under their own power without drafting, helping, pushing, supporting, or any other type of physical assistance. Racers may only be accompanied by fellow racers. (No pacers are allowed and no outside assistance of any nature may be received except at the Bald Head Island Conservancy checkpoint, except in an emergency)
10. Remember, at all times and in all situations, safety is the most important issue. This means safety for racers, volunteers, staff, and the general public. The roads and beaches are not closed for this event.
11. Please do not litter, mar, or pollute the landscape or environment.
12. Please must display courtesy, good taste, decorum, and sportsmanship at all times.
13. In all cases and circumstances, it is the intent, and spirit, of the rules which will govern their implementation and enforcement.
14. The range of possible penalties for breaking or disregarding rules include time penalties, disqualification, public shunning, loss of friends, humiliation, and/or being forced to swim back to Southport.

Time Limits

1. The time limit for the 50km race is nine hours.
2. The time limit for the 51mi race is fourteen hours, with a mandatory intermediate cut-off of eight hours at mile 32 at BHIC. 51mi racers who arrive at mile 32 in more than eight hours (and in less than nine hours), will be recategorized as 50km racers and ranked accordingly.
3. Racers may change distances during the event, switching from 50km to 51mi, or vice-versa, so long as time cut-offs and limits are respected.

Leaving the Course or Withdrawing

1. Short cutting is not allowed. There will be no allowance made for lost time or miles run in the wrong direction.
2. Do not "go missing." If you must withdraw from the race, please let us know.
3. All Emergency Evacuation costs for participants will be borne by that person or their heirs. The race organizers are in no way liable or responsible for emergency evacuation.

Legal and Bureaucratic Issues

1. All racers and must sign the Accident Waiver and Release of Liability / Release of Name and Likeness.
2. All racers must attend Racer Check-In.
3. All racers must be willing to submit to a drug urine test before (at any point prior to the race, after being officially confirmed for entry), during (at any time), or after the race (up to 90 days after the conclusion of the race). If any WADA banned substances are detected, the racer will be disqualified from competition, listed as **DISQUALIFIED FOR DOPING** in the final standings of the race, and banned for life from any AdventureCORPS event. Refusal to submit a urine specimen upon demand will also result in the racer being disqualified from competition, being listed as **DISQUALIFIED FOR DOPING** in the final standings of the race, and being banned for life from any AdventureCORPS event.
4. 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 willingly acknowledge this fact, as well as all other race rules, by attending the race in any capacity.



About Cape Fear

Cape Fear is a prominent headland jutting into the Atlantic Ocean from Bald Head Island on the coast of North Carolina in the southeastern United States. It is largely formed of barrier beaches and the silty outwash of the Cape Fear River as it drains the southeast coast of North Carolina through an estuary south of Wilmington.

Cape Fear is formed by the intersection of two sweeping arcs of shifting, low-lying beach, the result of longshore currents which also form the treacherous, shifting Frying Pan Shoals, part of the Graveyard of the Atlantic.

Dunes dominated by sea oats occur from the upper beach driftline back to the stable secondary dunes, where they mix with other grasses such as Saltmeadow Cordgrass and panic grass, as well as seaside goldenrod, spurge and other herbs to form a stable salt-tolerant grassland.

The Cape Fear estuary drains the largest watershed in North Carolina, containing 27% of the state's population.

Giovanni da Verrazzano, the Italian explorer sailing for France, made landfall after crossing the Atlantic at or near Cape Fear on March 1, 1524.

The name comes from the 1585 expedition of Sir Richard Grenville. Sailing to Roanoke Island, his ship became embayed behind the cape. Some of the crew were afraid they would wreck, giving rise to the name Cape Fear.[1] It is the fifth-oldest surviving English place name in the U.S.[2]

Cape Fear was the landing place of General Sir Henry Clinton during the American Revolutionary War on May 3, 1775. The 1962 movie Cape Fear and its 1991 remake were set at Cape Fear.

The legend of Cape Fear lives on with BADWATER® CAPE FEAR!

Source: Wikipedia



The first lighthouse on Smith Island was the Bald Head Light, completed in 1795. It was on the banks of the river at the island's southwest point and was quickly threatened by erosion. It was pulled down in 1813 and a new lighthouse was commissioned to replace it. In 1817, Daniel S. Way built the new lighthouse, "Old Baldy," for \$15,915.45. Old Baldy was always intended to light the mouth of the Cape Fear River and was never intended to illuminate the Frying Pan Shoals off the Cape.

Old Baldy was built of soft red bricks, many of which were reused from the first lighthouse, then covered with a plaster mixture of sand and lime. The 110 foot tower is an octagon with walls five feet thick at the base. During its active life, the lighthouse was whitewashed on a regular basis. The lantern, or lantern room, made of iron, copper, and glass, came from the first lighthouse as well. It is offset to allow for more support and to accommodate the keeper, who had to clean and make repairs to the outside. The original fixed light was powered by 15 lamps. It was built as a parabolic reflector with hollow wick lamps, fueled by whale oil, and arranged on a metal rack.

Over the years, Old Baldy's light changed as a signal. In 1834, a new mechanism was installed to flash red with a 30-second delay. During the Civil War, the light was darkened, but was relit in 1879 with new Fresnel lenses, a revolutionary design that produced powerful parallel beams of light. In 1893, the light was changed to white and new lenses installed. In 1903, it became a "fourth order" fixed light. Old Baldy was deactivated in 1935, and for a brief

period served as a Coast Guard radio tower before being abandoned to the elements.

Old Baldy was listed on the National Register of Historic Places in 1975. In 1985 a group of dedicated individuals founded the Old Baldy Foundation, a public not-for-profit 501-c3 organization dedicated to the maintenance and preservation of Old Baldy Lighthouse. The Old Baldy Foundation is governed by an eleven member board of directors and managed by an executive director. The lighthouse and property on which Old Baldy stands and the current Smith Island Museum were deeded over to the Old Baldy Foundation by the Mitchell Family in 1987.

For years visitors to Old Baldy could climb literally "at their own risk". In 1991 the Old Baldy Foundation launched a campaign, "Steps to the Top", to repair the steps to the top of the lighthouse. Between 1991 and 1995 Old Baldy Foundation raised over \$125,000 for renovation efforts.

In 1997 plans were developed to recreate one of the three keepers' cottages that stood on the site. The Old Baldy Foundation undertook a loan to finance the building of this one and a half story building. It now holds a small gift shop, museum exhibits and office space for staff. In 2000, upon opening this museum and gift shop the Old Baldy Foundation started to charge admission to see the museum and climb Old Baldy. Those fees, and the proceeds from the gift shop, are set aside for maintenance and long term preservation work.

To learn more and to support Old Baldy, visit Oldbaldy.org



History of Bald Head Island

Reprinted from VillageBHI.org.

The Village's history is peppered with colorful people and connections. Through the years, the island has been a breeding ground for wild boar, a prime hangout for bootleggers, a supplier of materials for cedar pencils, a Civil War fort, a nesting ground for loggerhead turtles, and a produce farm and fruit orchard. Pirates, lighthouse keepers, Indians, river pilots, ruffians, soldiers, farmers, and entrepreneurs of all types have come and gone, and yet, the Village's essence is unchanged. This can only be because the island itself is a living thing, with its own integrity and spirit, its wild beauty more or less disregarding man's inclination to tinker.

In the 17th and 18th centuries, when pirates ruled the waters off the coast of North Carolina with greed and terror, the Village was a favorite refuge and base for the notorious buccaneers. In all, the waters surrounding Cape Fear were a hideaway for hundreds of pirates, the most famous of which were Edward Teach, better known as Blackbeard, and Stede Bonnet, the gentlemen pirate.

Bonnet, the so-called "Gentlemen Pirate" from Barbados, was an educated retired military officer who turned to piracy in 1717 as a second career in order to escape what one historian tactfully referred to as "the discomforts he found in a married state." During his short stint as a pirate, Bonnet terrorized the Carolina and Virginia coasts aboard his sailing sloop *Revenge* with 10 guns and 70 men. For a brief time, Bonnet even linked up with Blackbeard, a pirate who never carried the title "gentlemen." In 1718 Blackbeard was cornered and killed aboard his sloop, *Adventure*, by two warships sent by the governor of Virginia. Just three weeks later, Bonnet was captured at Bonnet's Creek in Southport by Colonel William Rhett of South Carolina and hanged near Charlestown. Their deaths marked a dramatic end to the Golden Age of Piracy in North Carolina.

Long before pirates ever discovered the Village's nooks and crannies, Native Americans hunted Bald Head Island and fished its surrounding waters in the spring and summer while maintaining permanent settlements on the mainland. The island was, in effect, a seasonal retreat for the Native Americans when supplies of corn or grain began running low.

Early river pilots were responsible for giving the Village its unique and descriptive name. Eager to offer their navigational services to

ships approaching the entrance to the Cape Fear River, they took up watch on a high dune headland on the southwest point on the island. According to local lore, the headland was worn bare of vegetation, making it stand out in contrast to the forest behind it. This "bald" headland served as a reference point for ships entering the river, and the name Bald Head Island has endured.

The year 1817 saw the construction of the island's most revered landmark and symbol, Old Baldy Lighthouse. Still the island's only "high rise," Old Baldy lighthouse was the second of three lighthouses built on Bald Head Island, and is the only one remaining. In 1903, the lighthouse was decommissioned when the Cape Fear Light was erected on the eastern end of the island, but it still serves as a prominent day marker for mariners. Due to restoration efforts by the Old Baldy Foundation and the generosity of hundreds of contributors, visitors to North Carolina's oldest lighthouse can climb up her 108 steps for a spectacular panoramic view of Bald Head Island.

The foundation of the Cape Fear Light can still be seen at the end of Federal Road across from three lightkeeper's cottages known as Captain Charlie's Station, after Captain Charles Norton Swan, a lighthouse keeper who lived with his family on Bald Head Island from 1903 until 1933. Captain Charlie's Station is listed in the

National Register of Historic Places, and still commands a sweeping view of the dunes and sea at the island's southeastern point.

In addition to lightkeepers, in the late 19th and early 20th centuries the island was home to members of the U.S. Lifesaving Service, the predecessor to the modern day Coast Guard. Several buildings on the southeastern shore of the island overlooking Frying Pan Shoals served as equipment storage and housing for the servicemen. The only remaining Lifesaving Station structure is a boathouse that was moved from the beachfront to back among the dunes where it is now a private residence.

Another symbol of the past presence of lightkeepers and lifesaving servicemen on the island is the Old Boat House on Bald Head Creek, built in 1903 to store supplies and boats. A dramatic change in the shape of the creek channel over the last ninety years makes it appear to have moved several hundred yards.

The most notable feature on the 1864 Blackford map (established by B.L. Blackford) was Fort Holmes, located on the Bald Head promontory at the southwest corner of the island. Most of what we know regarding the fort can be gathered from a detailed sketch of its layout prepared in 1865. In addition, several firsthand accounts prepared by officers at Fort Holmes are extant. The fort had been hurriedly erected in 1863 and 1864 as part of a defense system for the lower Cape Fear. The string of forts from Bald Head to Wilmington kept the river, the "lifeline of the Confederacy," open for blockade runners. Given the presence of two navigable entrances, that at Bald Head and a second above Smith Island at New Inlet, the river was ideal for such traffic.

The sketch of Fort Holmes prepared by Federal occupation forces in 1865 indicates that the earthen breastworks extended the width of the island from the lighthouse to the southwest tip at Bald Head. A road to the opposite end of the island ran through the upper part of the fort. The earthen works, it was noted, were reinforced with



palmetto and oak logs. Four batteries extended along the east side of the fort. The fifth and largest, Battery Holmes, with bombproof magazines, was at the island's southwesternmost point. A flagstaff was positioned on the Bald Head promontory. Quarters and storehouses were located in several spots inside the fort.

Despite subtle shifts in sand and sea, Bald Head Island remains much as it was centuries ago. It still serves as a natural sanctuary for educators and students interested in coastal ecology, a home for a special breed of permanent residents that share a kinship of spirit with the hardy, independent lightkeepers and servicemen of days long past, and a refuge for vacationers seeking privacy and rejuvenation in a beautiful, relaxed setting.





Barrier Island Conservation • Preservation • Education

The Bald Head Island Conservancy is a non-profit organization that was founded in 1983. The Conservancy's mission is barrier island conservation, preservation and education. It is located in a unique area within the Smith Island Complex which includes Bald Head, Middle, and Bluff Islands, all of which are bounded by the Cape Fear River and the Atlantic Ocean.

The Conservancy sponsors and facilitates scientific research that benefits coastal communities and provides numerous recreational and educational activities to the public. In coordination with various organizations, partnerships and collaborations, the Conservancy has led the nation in conservation and research efforts and is uniquely poised to become a leader in Barrier Island Conservation world-wide.

As a subsidiary corporation and partner of the Conservancy, The Smith Island Land Trust complements these efforts by preserving significant properties in perpetuity, ensuring that land within the island complex will be forever protected in its natural state.

As a 501 (C-3) nonprofit membership organization, we are able to continue this work through the generosity and commitment of our

many members, island visitors and other supporters. Please know that your support of our work is greatly appreciated!

Explore the natural wonder of Bald Head Island...

The Smith Island Complex is comprised of Middle, Bluff, and Bald Head Island. Spanning ten miles of beach and dunes, 10,000 acres of salt marsh, 4,000 acres of barrier island 'upland,' and 193 acres of Bald Head Woods maritime forest preserve, Bald Head Island is an exceptional location to conduct research and educational activities.

Hailed as one of the last remaining barrier islands in North Carolina where one can walk uninterrupted through salt marsh, maritime forest, dunes and beach habitats, Bald Head Island is *the* place for your next class or research trip. The Bald Head Island Conservancy is here to facilitate your discovery of Cape Fear.

Barrier Island Study Center – a LEED Gold Certified building that contains a wet laboratory, dry laboratory, multimedia theater, and research library. Environmentally friendly features include Cape Fear river wood, recycled floor tiles, skylights, recycled lint insulation, energy efficient lighting, zone specific HVAC system, SIPS walls, 7,000 gallon rainwater cistern, and recycled metal for support structures. The multimedia theater seats 40 and facilitates presentations, DVDs, and interactive meetings. The dry laboratory seats 10 and it outfitted with a complete glassware set, buret, basic measurement tools, and gas hookup. The wet laboratory seats 40 and contains microscopes, dissection scopes, autoclave, fume hood, touch tank exhibit with live invertebrates, and two walls of 10 gallon saltwater research aquaria. The research library contains 6 study carols.

2016 SEA TURTLES

Bald Head Island, North Carolina

34

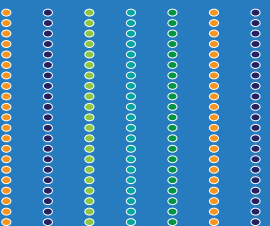
UNIQUE INDIVIDUAL MOMS

50%

OF THOSE WERE NEW MOTHERS TO BHI

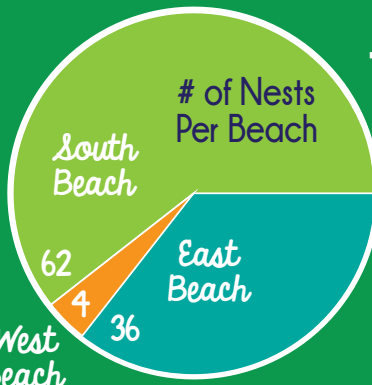
HIGHEST NESTER

① ② ③ ④ ⑤ ⑥
Fancy Nancy



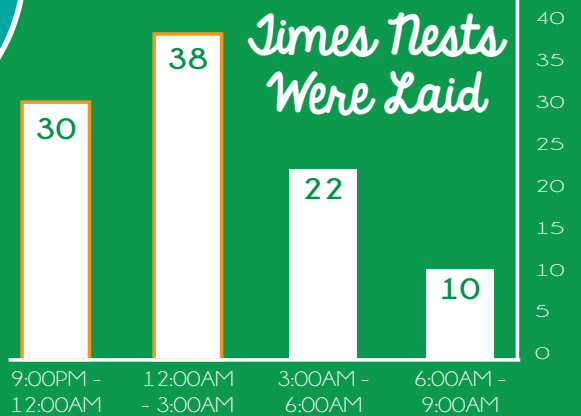
MOST EGGS IN ONE NEST

169
LAID BY FLUFFY



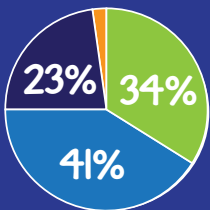
105 FALSE CRAWLS
102 NESTS

Times Nests Were Laid



77%
HATCHING SUCCESS RATE

41% OF NESTS WERE RELOCATED



NEST RELOCATION REASONS

- 41% CLOSE TO SCARP
- 34% NARROW BEACH
- 23% CLOSE TO HIGH TIDE
- 2% BEACH ACCESS PATH

APPROXIMATELY **9,000**
hatchlings
WENT TO SEA FROM BHI!



BHIC.ORG

approximately **90%**

OF NESTS WERE ADOPTED THROUGH ADOPT-A-PROGRAM

approximately **10%**

OF THOSE HATCHLINGS WERE RESCUED AT NEST EXCAVATIONS

BHI Conservancy's Sea Turtle Protection Program

Efforts to protect the habitats and activities of sea turtles on Bald Head Island go back to 1980. Since its inception in 1983, the Bald Head Island Conservancy has coordinated and sponsored the Sea Turtle Protection Program, in cooperation with the North Carolina Wildlife Resources Commission and the National Marine Fisheries Service. As one of NMFS's "index beaches," Bald Head Island is nationally recognized for its sea turtle nesting activity, and for the Conservancy's efforts to protect this resource.

Each summer, the Conservancy funds and houses six interns to conduct field work for the Sea Turtle Protection Program, under the direction of our sea turtle biologist. The interns are typically undergraduates majoring in natural resource related fields. This internship opportunity is both unique and demanding. The interns not only conduct nightly patrols of the beach, but also experience the full range of job functions associated with running a small nonprofit organization.

The majority of an intern's summer is spent patrolling for nesting sea turtles from dusk until dawn on an all terrain vehicle. BHIC is the only NGO in North Carolina permitted to flipper tag nesting female sea turtles. Saturation tagging, tagging every possible female, provides a census of all nesting females. Very few other beaches conduct tagging studies as demanding. Data collected from nesting sea turtles includes GPS nest locations; flipper tag data; PIT tagging; straight and curved line carapace dimensions; and occasionally satellite tagging.

After the nesting female returns to the ocean, interns protect the nest from predation by a protective wire cage around the nest thus preventing raccoons, foxes, and dogs from disturbing the nest, while allowing the hatchlings to emerge unimpeded. Before the use of wire cages became standard practice on Bald Head, predation resulted in a nest mortality of approximately 50%. This has been greatly reduced in recent years.



Nests laid in a suboptimal location may be relocated to a safer location. Eggs may be in danger if they are laid below or close to the high tide line, in an area of high foot traffic, or of low sand quality. A nest can be relocated within the first six hours after it was laid, which is facilitated by our intensive beach patrolling.

As our interns return to school in mid-August, the sea turtle biologist assumes patrol duties to monitor nesting activity and emerging hatchlings. Since the incubation time for sea turtles in our locale is approximately sixty days, Bald Head hosts sea turtle hatching events from late July through mid-October.

After a nest has hatched, or if the nest is overdue, it will be excavated to determine nesting success. Success is determined by counting the number of eggs that successfully hatched vs. the total in the nest. This is evident by the number of empty eggs left in the nest along with the number of unhatched eggs. Frequently, viable hatchlings are rescued and released on the beach so they can make their way to the ocean.

Most of the sea turtles that visit our beaches are loggerheads (*Caretta caretta*), but we will occasionally see the Atlantic green sea turtle (*Chelonia mydas*).

Sea turtle nesting on Bald Head Island has experienced a general downward trend over the past 25 years but we are hopeful that through our protection efforts the number of nesting females will begin increasing in the years to come. Find out what you can do to help us continue this important research so that we ensure future generations will have the chance of witnessing these majestic, ancient creatures.



Bald Head Island Turtle Data

- **Approx. 180,000** turtles have hatched on BHI beaches since 1980.
- **102** nests were laid on BHI in 2016, which is the most the island has had in over 25 years!
- BHI has the highest hatching success rate in the state of NC thanks to our sea turtle monitoring program
- 2017 will be our 37th year of monitoring sea turtles on BHI.

Fort Fisher State Recreation Area, Kure Beach, NC



Reprinted from NCParks.gov

Prior to European settlement, the Cape Fear Native Americans, of the Siouan language group, lived in and around the lower Cape Fear peninsula; farming, fishing and hunting. Artifacts of the native culture, including pottery fragments, arrowheads and mounds of oyster shells, or midden piles, have been found in this area.

Early attempts at colonization in the area were unsuccessful, mainly due to conflicts with the Cape Fear Native Americans. Pirating, common in the area during colonial times, also contributed to the struggles of early settlers. About 1730, further upstream along the Cape Fear River from Fort Fisher, the port of Wilmington was settled. Wilmington became a bustling port, particularly important for its exports of naval stores - tar, pitch and turpentine products derived from the resin of the longleaf pine.

During the Civil War, Fort Fisher, built in 1861, served to protect the valuable port of Wilmington from Union forces. By late 1864, it was the last southern port open to trade. In this same year the first of two Union attacks on Fort Fisher took place. The fort held strong during the first battle and Union forces withdrew, but the Confederacy was not so lucky the second time.

In early 1865, a fleet of 56 ships bombarded the fort prior to a land assault by a force of more than 3,300 infantry. After a six-hour battle, Fort Fisher was captured and the Confederate supply line was broken. It was the largest land-sea battle fought in any war up to that time. The outcome contributed significantly to the outcome of the Civil War. Approximately three months after the fall of Fort Fisher, the Civil War came to an end.

In the late 19th century, a long rock jetty called “The Rocks” was built west of Fort Fisher to aid navigation by stopping shoaling in the Cape Fear River. Completed in 1881, The Rocks closed the former New Inlet, once used by Confederate blockade-runners to avoid the U.S. Navy, and created a lagoon, now called “The Basin”. Today, The Rocks and The Basin are part of the Zeke’s Island component of the North Carolina National Estuarine Research Reserve, and 1160-acre area of outstanding estuarine and ocean resources with extensive marshes and tidal flats.

The southern tip of New Hanover County became an island (now known as Pleasure Island) in 1929 when the U.S. Army Corps of Engineers dredged Snow’s Cut (named for Major William A. Snow, Chief Engineer for the Wilmington District). This cut is a canal that connects the Cape Fear River to Masonboro Sound and is now part of the Intracoastal Waterway.

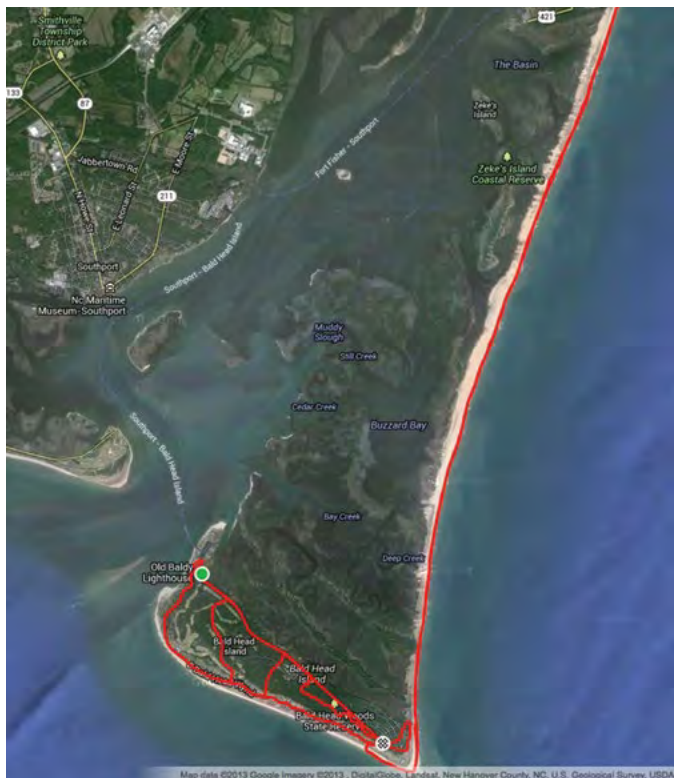
World War II caused huge economic and social changes in the Wilmington area as industrial development and shipyards boomed. Civilian workers and military personnel poured into the area during the war years, causing Wilmington's population to quadruple.

In late 1940, construction began on Camp Davis, located about 30 miles north of Wilmington. The base used five remote training sites along North Carolina's southern coast, and Fort Fisher became the primary firing range. The range stayed open until 1944, training many military personnel and aiding the war effort. A bunker still remains along the Basin Trail from the World War II base.

From 1955 to 1972, Robert E. Harrill, who became known as the Fort Fisher Hermit, lived in the World War II bunker. He became a celebrity and philosopher of sorts, becoming known to the thousands of visitors who came to Fort Fisher during those years. Harrill relied on nature for much of his food, eating oysters, clams and fish as well as what he would grow. Over time, as his popularity and reputation grew, he also benefited from donations left by his many visitors.

Fort Fisher State Recreation Area was established as a unit of the North Carolina State Park system in 1986 when 287 acres were transferred from the Historic Site to the Division of Parks and Recreation. Today, Fort Fisher offers beach access, educational programming and many other amenities to hundreds of thousands of park visitors annually.

For more information, visit NCParks.gov and [Facebook.com/FPISP/](https://www.facebook.com/FPISP/)



Located just down the road from the FFSRA Park Headquarters in Kure Beach, NC (the northernmost point of the Badwater Cape Fear race route) is the **North Carolina Aquarium at Fort Fisher** and it is absolutely worth a visit! Visitors journey along "The Waters of the Cape Fear" – from freshwater streams and swamps, to coastline habitats, reefs and the open ocean. It is an outstanding destination for visitors of all ages.

The North Carolina Aquarium at Fort Fisher is located on US 421 approximately 15 miles south of Wilmington, just beyond Kure Beach. From Southport, take the Southport - Fort Fisher Ferry. For ferry schedule, call 910-457-6942 or toll free at 1-800-BYFERRY.

Open 9 a.m. to 5 p.m. daily (closed Thanksgiving Day and Christmas Day).

For more information, visit www.ncaquariums.com



FFSRA Park HQ, and also the northernmost checkpoint of the BWCF Race Route!



Fishing is a popular activity within the northern end of the race route. Watch for fishing lines!

CURT EURY, RIP



At the 2016 Badwater Cape Fear, it was really awesome to reconnect with my friend Curt Eury,

who I hadn't seen in about 25 years. Back in the 80s, when I got into the brand new sport of ultracycling, I was befriended by three "grown-ups": Curt, plus Jorge Saavedra and Dave Moore. I was a teenager and they were all about 20 years older than I; we would travel to 100- and 200-mile (and longer) races together and share hotel rooms, then often share many miles on the road together. We'd also support one another - or race against one another - in 500- and 700-mile long ultracycling races. Those three guys taught me a lot and helped me a lot. They were my mentors and friends, and crazily enthusiastic and supportive. When I became a race director in 1990, Curt was there to volunteer at the race that would become known as Furnace Creek 508, which I would direct for 26 years.

Curt retired to his home town of Albemarle, NC about ten years ago, from where he'd moved to Huntington Beach, CA at age ten. He had embraced the SoCal lifestyle, becoming a lifelong surfer and bicyclist, but was happy to return to his North Carolina roots later in life. Even across all the years and all the miles, he kept subscribing to my AdventureCORPS / Badwater Email Newsletter. Hearing I was now hosting a race in his home state, he wrote to reconnect in 2015 and then in 2016 he drove down to support the race.

Curt met up with a bunch of us for the ferry ride on Thursday before the race. Over dinner that evening at Mojo's on the Harbor, he regaled us with stories of seeing Jimi Hendrix three times in concert, along with The Doors (also three times!), and Janis Joplin. (Our jaws were wide open in awe and envy.) On Friday he helped at Racer Check-In and then he attended the Social Mixer.

On Saturday, Curt stood at the entrance to the 1.5-mile stretch of Maritime Forest Reserve Trail, to warn each and every runner to "watch your head, watch your feet, and follow the pink ribbons."

After that, he helped out at the Conservancy checkpoint. Then, as we'd planned, he got onto his "fat bike" (a mountain bike with super wide tires) to pedal up the beach to Fort Fisher to check on the racers and because he loved the beach and pedaling a bike more than anything.

Nobody loves beaches and bikes and sports events like Curt, so it was a perfect way for him to spend the afternoon.

Along the way, Curt would stop and ask runners if they needed anything, and offer words of encouragement. Two of them were Jaime McDonald and my brother Keith, but everyone got a smile and greetings. He stopped at the Mid-Beach Checkpoint to hang out and take in the scene for a while. Then he kept pedaling up that fantastic beach on that glorious day, surrounded by fellow athletes and part of a community that embraced the same things he loved.

And then Curt died.

Two of our runners found him and tried to help. (Thank you!) They flagged down a 4x4 and he was taken to Fort Fisher State Recreation Area HQ as quickly as possible. There, the Park Rangers made a valiant effort to revive Curt, but to no avail.

Curt was a lifelong surfer and cyclist. He died on his bike, on a beach, on a fantastic day. He was only 67, and that's way too young for anyone to go. He had had a quadruple bypass a few years ago, but I never heard if the final cause of death was determined. He left behind four children and 13 grandchildren.

He was a great guy and a great friend. I'm so glad we reconnected on Bald Head Island. I'm so glad he was at the race and involved with it. I'm really happy that all the 2016 runners met him, even if only briefly.

—Chris Kostman

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