

Coffee, Caffeine & Fitness. Does it really help?

NAVIGATION GAMES™

**“And They’re off”
Primal Quest Dirt**

Plotting on the Fly

**Team Profile:
Enduraventure**

**Pedometer -
The Perfect Tool**

Rogaine Champs

FREE AGAIN!
WHEN WILL IT END?!?

July 2006

Save the Planet - Read Magazines Online!

***This truck rack is so easy
to use you'll find yourself
playing more often***



866-GET-RAXX (866-438-7299)
www.sportraxx.com



**Team Adventure Racing Con-
cepts working on their maps
at night**

Photo by Rick Eastman

Publishers Note

The biggest race of the year is underway, and it's turning out to be an epic adventure for all involved. The Primal Quest has taken its place as the top Adventure Race in the world.

Watching the GPS tracking feature on the Primal Quest site is incredibly entertaining and informative. Being a relatively slow racer, but good navigator, I'm constantly trying to figure out why one team went one direction while another went the opposite way. I break out mapping software, look at aerial photo's, launch Google Earth...of course, I also think I could race in one of these things.

So, as we head into the latter half of 2006, I'm re-committing myself to oneday completing an expedition length AR. Yep, now all I have to do is lose 40 pounds, figure out how to keep from getting blisters after walking in the sand for 450 miles and wrassle up some coin to pay for the fiasco.

Post Script Thank You to Greg Gibbard who took the photo of Lili soaking wet in last months article: O Solo Mio.

See ya outside.

Rick Eastman



NAVIGATION GAMES

July 2006 Number 6

Publisher/Editor/Advertising
Rick Eastman
Info@NavigationGames.com

Senior Editor
Kim Robinson

Contributing Photographers
Rick Eastman, Kim Robinson, Michelle Kelly, MyRacePics.com, Wikipedia.com, Dan Coddington, Tara Paprocki, Patti, Lotus Head, Andy Armstrong

Contributing Writers
Rick Eastman, Jon Gestl from www.articlecity.com

Editorial & Business Office
6926 Carnation Dr. Carlsbad, CA 92011

The opinions expressed by the staff & writers of Navigation Games Magazine are exactly that, opinions. They do not reflect the views of the owners of Sierra Adventure Sports or it's subsidiaries. The activities described in Navigation Games magazine contain a potential high level of risk, injury or death. No person should attempt any of these activities based on reading about it in Navigation Games magazine. You must take 100% responsibility for your own safety whenever you participate in any type of activity, including those that you might read about here. Get some professional training before trying any of these activities.

Copyright, Sierra Adventure Sports 2006

On the Cover: Adventure Racing Concepts training for the Primal Quest.

Facing page: The La Sal Mountains and rockformations, making up just a small portion of the PQ course. Photo by: Rick Eastman.



Contents

Primal Quest Dirt.....8	AR Team Profile "Enduraventure.".....22
AR Podcasts.....10	Keeping Pace with a Pedometer.....28
Tear Out Orienteering Glossary.....11	Plotting on the Fly.....30
One Team's Journey to the PQ.....13	North American Rogaine Champs.....36
Coffee, Caffeine, & Fitness.....16	AR, O, and GEO training.....39



AdventureXstream
Adventure Series



AdventureXstream The Expedition:
October 5th-8th, 2006
Moab, Utah

AdventureXstream Race Series:
Sprint - 12hr - 24hr Events
Moab, UT - March 25th
Durango, CO - June 10th
Breckenridge, CO - July 22nd
Vail, CO - September 9th

\$30,000.00 in Cash Prizes
Solo, 2 Person & 4 Person Team Categories
Coed or Open Divisions

GRAVITYPLAY.COM
PHOTOGRAPHY

Adventure
Xstream

Adventure
Xstream

ADVENTURE
scapes

MTB
100

www.GravityPlay.com Events@GravityPlay.com 970.259.7771

ADVENTURE-RACE-REPORTS.com

The place to share our adventure racing experiences!

Adventure Race Reports

A place for YOU to share YOUR adventure race experiences!

The Adventure-Race-Reports.com Concept
Adventure-Race-Reports is a place where anyone interested in adventure racing, especially those involved in the sport, can go to share real information about a particular race. Not professional press releases, but stories written by the actual racers who have participated in the event -- giving an unbiased look at what the race was like, and providing a great educational resource for future races.

Why Adventure-Race-Reports.com is Different
Adventure-Race-Reports was founded with the idea of making adventure race information easily available to anyone who wants to find it:

- Anyone can easily post their race reports and photos
- You can add to or edit your story at any time
- All race reports are well categorized, by race, location, and year
- The whole set of race reports is easily searchable

The site is entirely free and open, and has become the one-stop source to find race stories, across the USA, from a single location! In short, this site is an interactive exchange forum for the adventure racing community!

Looking for reviews about an upcoming race?
Check out the site to see what happened in last year's race!

Share with Friends and Relatives!
No doubt you'll want to tell your friends about your race experiences. Next time, why not also post story to ARR? Friends and family can easily read and print your story and photos ... and you'll help out lots more adventure racers who are interested in what the race was like!

All reports, stories and reviews are welcome!
Amazing stories have been written by novices and veterans alike. All adventure races involve the struggle to overcome challenges which makes for fascinating reading. In fact, some of the most compelling and inspiring stories come from races where things didn't go quite perfectly! If you've got a story to share, no matter how short, there will be people who want to read it. Post it at Adventure-Race-Reports!

www.Adventure-Race-Reports.com

Primal Quest Dirt

Racers, spectators, volunteers and staff almost unanimously agree that the 2006 Primal Quest was the best yet, and on the podium for one of the best expedition length adventure races to of all time. Primal Quest joins the Raid Gauloises and Eco-Challenge on the throne of great expedition races. Nothing about getting here was easy though, and as of this writing, it's not over yet.

This race faced challenges from the start: the death of Nigel Aylott at the most recent PQ, environmental concerns associated with the four corners region of the US & changes in management and sponsorships. At the helm, Rich Brazeau, CEO of Primal Quest assembled a team consisting of veteran race Promoter/Director Don Mann and Gordon Wright handling public relations.

Rich took the time to answer a few nagging questions we had about the race, where it's been and where it's going.

NG: Where did you begin in course design? What were your goals?

RB: We wanted it to be the most epic location in North America. We wanted a course that would have an expedition-type route, not a circle, but point to point. The other criterium was that it had to be rugged and fairly desolate and everything had to be larger than life.

NG: Will the PQ be on TV anytime? When?

RB: ABC and ESPN networks worldwide in October.

NG: Any chance the PQ could head to the eastern US in the future?

RB: Not any time soon.

NG: Where will the PQ go in 2007?

RB: We're looking at Central or South America for 2007, and my PR guy, Gordon Wright, keeps lobbying for Slovenia. But after that we'll see.

NG: Why the increased focus on ropes?

RB: We've always been pretty ropes-oriented. Each PQ had a pretty amazing crown jewel of ropes, including Bridalveil Falls in Telluride and Calaveras Dome in Tahoe. This was different because of the nature of the terrain. Our crown jewels – the Castleton spire and Priest and Nuns, were bigger than anything we'd done, plus we had these huge canyons that had only one way to get up or down – via ropes. Thus the eight miles of ropes we deployed on the course.

NG: Where did the idea for Riverboarding come from and how do you feel it went?

RB: Riverboarding was incorporated into the race to reduce core body temps. We knew it would be hot and wanted total immersion of the racers in a particularly hot part of the course. To that end, it worked. It was fun for them, so we'll do it in the future, though with higher degree of difficulty.

NG: Any new surprise disciplines in the works for the next PQ?

RB: It all depends on the local terrain. Who knows – maybe alpacas.

NG: For those watching from their computers, we saw a lot of zig's and zag's on the GPS tracking. We're their areas where racers had to take mandatory routes to avoid sensitive areas?

RB: Yes, but that didn't necessarily account for the zigs and zags. A few of them are data blips that we eliminate over time - and of course, there's plain old poor navigation

NG: Looking back, anything you'd change?

RB: Design-wise, there's nothing we'd change. Timing wise, we'd love to have done this in March; that'd be the ideal time. The tone was set from the get-go that this would be a race of survival and not just pure speed. It added to the logistical load, of us having to move thousands of pounds of water and Gatorade around the course.

NG: Looks like sponsors (i.e. Nissan) took notice in the final hour, what happened there?

RB: Nissan came in as presenting sponsor, and we were glad to see them step up; all our sponsorship development take place over a very long period of time, so that's just how that went

NG: With Television being the biggest obstacle to Adventure Racing becoming a household word, are we



at the 'tipping point'?

RB: No - but tune in in October.

NG: Why the surprise Orienteering section? Was that on backup for use in case the race was moving too fast?

RB: Yep. It was our Sansabelt, we could expand or contract as needed

NG: Will "Primal Quest Tours" offer an adventure travel version of the race?

RB: Uh, no – we're not in the tourism business.

We can always hope!
NG

GoFARpodcast.com



Download and listen to Adventure Racing interviews on your mp3 player

Throughout the year, GoFAR podcasts will include interviews with the world's best adventure racers, mountaineers, climbers, triathletes, runners, and expeditionaries. The site will also serve as a comprehensive, interactive outdoor community where users can blog, chat, seek training advice, and lookup races. The podcasted material is extremely attractive to the outdoor public because well-known interview subjects relive epic tales of adventure and disseminate valuable information about nutrition, training, racing, and the like.

GoFAR is your podcast source for Primal Quest 2006. On-site race coverage begins June 22.



Through cutting-edge digital audio technology, GoFAR brings you the latest PQ coverage via downloadable podcast. Tune in to FREE expert commentary and exclusive on-course interviews with the racers. Hosted by professional adventure racer Travis Macy of Team Spyder.

Post-Primal Quest coverage will include reports from the Adventure Racing World Championship and Raid World Championship, along with an exclusive pre-race interview with Mikael Nordstrom, ARWC 2006 race director.

Orienteering Glossary

Print it out and take it with you to your next meet

Glossary courtesy of Orienteering Unlimited. See the full glossary with interactive links at <http://www.orienteeingunlimited.com/glossary.htm>

Aiming Off - to deliberately aim to one side of a control or feature so that you know which way to turn upon hitting the feature before seeing the control.

Attack Point - an obvious feature near the control point from which the control can be located by navigating carefully with map and compass.

Bearing - the direction of travel as indicated by the compass.

Catching Feature (also called a Collecting Feature or Backstop) - an obvious feature on the map and ground located beyond a control or other sought after feature which indicates that the target feature has been over-shot.

Check Point - an obvious feature on the map or ground which can be used to check that you are keeping to your chosen route.

Contour - a line on a topographic map that connects points of equal elevation.

Control/ Control Marker/ Marker - a trapezoid-shaped marker (usually orange or red and white) used to mark features on an orienteering course, usually with clipper or control punch attached to mark a control card as proof of arrival.

Control Card - a card carried by each participant, which is punched at each control feature to verify the visit.

Control Circle - a circle drawn around a feature on the map to indicate the location of a control marker. The feature should be in the exact center of the circle.

Control Code - letters (or numbers) on a control marker which enable participants to verify that it is the correct one.

Control Description - a list given to each participant which briefly describes each control feature in order. It also gives the control code.

Control Feature - a natural or man-made feature on or next to which the control is hung.

Control Marker - see control.

Control Number - a number drawn beside each control circle on a map. On a cross-country course, they indicate the order in which the controls must be visited. The top of the number should point to North.

Control Punch - a small plastic clipper with different designs of pins. Used to verify each control feature has been visited.

Course - a sequence of control points marked on the map which are to be visited by the orienteer.

Cross Country Course - the classic course used for all major competitions. Control features must be visited in the prescribed order.

Dog-Leg - positioning of a control which favors approaching and leaving a control by the same route, thereby leading other competitors to the control. Course design which results in a dog-leg should be avoided.

Fine Orienteering - precision navigation in detailed terrain usually demanding careful use of map, compass and pace counting, and usually involving short course legs.

Finish Symbol - If it shares the same location as the start:

If its location is separate from the start:

Folding the Map - orienteers fold their maps to aid concentration on the leg being run, and to facilitate thumbing



their position.

Handrail - A linear feature which closely parallels your route and acts as a handrail to the next control.

Knoll - a small hill. Go to top...

Leg - a section of a course between two control points.

Legend or Key - a list of the symbols represented on the map.

Linear Feature - a feature that extends in one direction for some distance e.g., paths, fences, stone walls, and streams. Used as handrails.

Line Event - event where maps are marked with a line indicating the exact route to be followed. Participants mark the precise location of each of the controls they find along the route.

Orienting the Map - matching the orientation of the map to the features on the ground. This is one of the fundamental skills in orienteering, and leads to successful navigation. The map can be oriented either by comparing the map directly with the terrain or by using a compass to orient to north.

Master Map - a map displayed near the start from which competitors copy their courses onto their blank map. More experienced orienteers will copy the course onto their map while the clock is running. Novices should be allowed to do this before being given

a start time. In bigger events, the courses are pre-printed on the maps.

Pace Counting/ Pacing - a system of counting double-paces (every time the left or right foot hits the ground) to measure distance covered. An orienteer would measure the distance between two points using the scale on the compass and then count his/her paces until the distance was covered. Pacing allows an orienteer to know when he or she has perhaps gone too far and missed the feature they were looking for.

Point Feature - a feature in the terrain that only occupies a small area. Frequently mapped examples are boulders, pits and mounds, stumps, and root mounds. They are not suitable as control sites for novice courses unless they are on a handrail.

Precision Bearing - some compasses can be used to take a precise bearing (direction clockwise from north) which can then be followed in the terrain

Punching - the act of marking the control card with the punch.

Reentrant - a small valley running down a hillside. A stream cut into a hillside would create a reentrant-type feature. On a map, the contour lines which describe a reentrant point uphill.

Safety Bearing - a compass bearing which, if followed, will bring a lost orienteer to a road or other major, recognizable feature. It maybe added to the control description list as a safety measure.

Safety Whistle - a whistle which can be used if a participant is injured or lost. The International Distress Signal is six (6) short blasts repeated at one (1) minute intervals.

Score Event - participants visit as many controls as possible within a fixed time, e.g., 30 minutes. More distant or difficult controls are often allotted a higher point value. Points are deducted for each amount of time the orienteer arrives after the allotted time is up, say 5 points for every minute.

The person with the most points wins.

Spur - a small ridge.





































































































Star Event - an event in which participants must return to the start between each control. This can be used for relay events or for keeping close contact with novices.

Start Symbol -a triangle used to locate the start on the map. It should be centered exactly over the starting point, and one apex should point toward the

first control.

String Course - a course marked with a continuous string line. These courses are often used with very young children to give them familiarity with the forest.

Thumbing - a technique for holding the map, using your thumb to indicate your present location. To do this properly, it is often necessary to fold the map.

Column C (which one of several)	 upper	 lower	 middle	 most north-eastern	 rock pillar	 group of boulders	 boulder field	 stony ground	 cave	 narrow passage	 bare rock	 lake	 pond	 waterhole/wet pit	 stream	 ditch*	 dry ditch/small gully	 marsh	 firm ground in marsh	 narrow marsh	 minor water channel	 well	 spring/source	 water tank, water trough	 open land	 semi-open land	 forest corner	 clearing	 vegetation boundary	 thicket	 linear thicket	 distinctive tree	 distinctive tree*	 copse	 copse*	 root stock	 road	 track/path	 ride	 wall	 fence	 telegraph pole	 power line	 footbridge	 building	 ruin	 tower	 crossing point	 shooting platform	 fodder rack	 tunnel	 paved area	 pipeline	 charcoal burning ground	 sculpture	 building pass through	 stairway	 boundary stone/cairn	 broken ground	 special item (meaning will be given)	 special item*	 2.5 feature height	 8 x 4 horizontal dimensions	 0.5/3.0 height of feature on slope	 2.0/3.0 heights of two features with control between the	 NE side	 E edge	 W corner (inside)	 W corner (outside)	 bend	 NW tip	 N part	 S end	 upper part	 lower part	 between	 top	 beneath	 foot (no dir.)	 NE foot	 drinks	 radio control	 manned control	first aid																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Column D (the control feature)					 earthbank					 quarry					 earth wall					 terrace					 spur					 re-entrant					 gully					 hill					 knoll					 saddle					 depression					 small depression					 pit					 anthill					 platform*					 crag/cliff					 boulder																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										



Up until the last few hours prior to the race the team was still taking time out to shoot emails to their fans cheering them on from AZ. Teams they regularly raced against, fans from across the country, and family were all glued to the internet coverage even before it got started.

When the team finally received their first set of instructions, they let us all in on the secrets of the course. With the initial sections including desert trekking the group was feeling quite confident.

Time to rest...whatever!

At just after 6am on June 25th, the team took to the desert of southeastern Utah in an all out push to finish the most

would continue with solid finishes, with Josh and Jack completing the Ironman in between adventure races.

As the PQ grew ever closer, Josh gravitated toward lead navigator for the team. Tara, who'd been focusing on completing EMT school for sometime had missed some of the races, though was able to keep up on her training at other times.

On Wednesday, June 21st, the first official day of summer, the team converged on the town of Moab for their first look at the race area as a team. Confident due to their desert training, the team set to completing all the anticipated skills testing. A favorite, riverboarding, would later prove to be one of the highlights of their race.



challenging race in the world.

Sprints were high. Well more than \$10,000 had been spent on entry fees, gear, travel, etc. in preparation for this moment.

Team Adventure Racing Concepts would go on to complete the first half of the course and nearly 200 miles of travel by foot, kayak and riverboard. While undoubtedly disappointed, what they accomplished in just that first few days was remarkable. Dennis posted this message for friends and family after the team withdrew.

It is with great personal disappointment, that we had to withdraw as a team last night after a 32 hour trekking section. I had the worst foot problems that I have ever had, with my pinky toe being "degloved" of its' skin. It literally felt like my toe was on fire for over 30 hours. It was virtually impossible to walk more than a one foot stride and as you can imagine, with the elevation gains, slot canyons and ridgeline travel, this became a huge burden on the team. Tara and I both suffered severe damage to our feet and it made racing virtually impossible, given the time cutoffs we were about to encounter. We are very proud of ourselves as a team, and Josh and Jack were phenominally supportive and strong as ever. We got some great stories to tell, despite only being on the course for 4 1/2 days. Check out our bike split! We kicked some of the top teams butts! Even with a 20 minute grocery store stop and minor bonking over the last 10 miles. Talk soon, will post an article tonite. D

While as yet un-confirmed, it's a good bet we'll see Dennis, Tara,

Josh and Jack back again in a future Primal Quest.

06 SMAC XL ARace
 XL = Extra Long 12-15hrs.
 Saturday July 22, 2006;
 Huron Meadows MetroPark
 2 person (coed, male, female)
 Canoe...Mountain Bike...Fixed Rope ..
 Orienteering and *Special Events*
www.smacworld.com

**Suunto Navigation Award
Is Up For Grabs**

Each member of the winning team will receive a personalized Suunto Jacket

SMAC's AR's have become well regarded in the AR community for their score-O / Rogaine finishes. Controls can be collected in any order and the number of controls located determines the team's overall position.

SUUNTO
REPLACING LUCK.

Coffee, Caffeine & Fitness

by: Jon Gestl

One look at a line at the local Starbucks in the morning and you don't need to be convinced of the huge amount of coffee consumption in the U.S. The National Coffee Association found in 2000 that 54% of the U.S. adult population drinks coffee daily. Guess there's nothing like the first double espresso in the morning to clear the cobwebs from our heads so we can face the day.

But what are the effects relating to fitness? If that grande-no-foam-double-whipped-extra-shot-no-fat latte gives us the get-up-and-go to start our day at work, will it do the same if we're headed to the gym?

Physiological Effects

The main ingredient in coffee that gives us that jolt is caffeine, a central nervous system stimulant. Caffeine is found naturally in coffee beans, tea leaves, and chocolate, and is a popular added ingredient in carbonated beverages and some over-the-counter medications such as cold remedies, diuretics, aspirin, and weight control aids. It is estimated that in the U.S., 75% of caffeine intake comes from coffee.

Caffeine stimulates the central nervous system by blocking adenosine, a neurotransmitter that normally causes a calming effect in the body. The resulting neural stimulation due to this blockage causes the adrenal glands to release adrenaline, the "fight or flight" hormone. Your heart rate increases,

your pupils dilate, your muscles tighten up, and glucose is released into your blood stream for extra energy. Voila... you now have the caffeine buzz.

But wait...we're not done yet. Caffeine also increases dopamine. Dopamine activates the pleasure in parts of the brain. It has been suspected that this also contributes to caffeine addiction.

Physiologically, caffeine makes us you feel alert, pumps adrenaline to give you energy and changes dopamine production to make you feel good. Another espresso, anyone?

Ergogenic Effects of Caffeine to Performance

In addition to various psychological and physiological benefits, numerous studies have documented caffeine's ergogenic effect on athletic performance, particularly in regard to endurance. Studies show that caffeine ingestion prior to exercising extended endurance in moderately strenuous aerobic activity. Other studies researching caffeine consumption on elite distance runners and distance swimmers show increased performance times following caffeine consumption.

Despite effects on endurance, caffeine produced no effect on maximal muscular force in a study measuring voluntary and electrically stimulated muscle actions. However, the same study did show findings that suggest caffeine has an ergogenic effect on muscle during repetitive, low frequency



Got race reports?

Send us 2 hundred words and 2 photo's.

Info@NavigationGames.com



chicago area unknown
**adventure
racing** association
challenge yourself
extreme
push limits
teamwork

www.chicagoadventureracing.org

stimulation.

Caffeine’s positive performance-enhancing effects have been well documented. So much so that the International Olympic Committee placed a ban leading to disqualification for an athlete with urinary limits exceeding 12 mg/mL. Roughly 600 to 800mg of caffeine, or 4 to 7 cups of coffee, consumed over a 30-minute period would be enough to exceed this level and cause disqualification. The National Collegiate Athletic Association has a similar limit, set at 15 mg/mL.

Coffee: A Pre-Workout Drink?

Before you make Starbucks part of your pre-workout warm-up in order to harness the effects of caffeine, be aware that simply downing a grande may not give you similar benefits found in these studies. A recent Canadian study published in the Journal of Applied Physiology compared the effect of coffee and caffeine on run time to exhaustion. A group of nine men took part in five trials. Sixty minutes before each run, the men took one of the following:

- A placebo
- Caffeine capsules
- De-caffeinated coffee with caffeine added
- Regular coffee

Performance times were up to 10 times longer in subjects using the caffeine capsules, with no differences in times among the other trials. Since the level of caffeine absorption was similar during the caffeine trials, researchers concluded something in the coffee itself that interferes with caffeine’s performance-enhancing effects. This makes sense considering that there are literally hundreds of compounds



dissolved when coffee beans are roasted, ground and extracted. Results of this research suggest that if benefits of caffeine on endurance times are desired, caffeine capsules work better than coffee.

Caffeine and Creatine Supplementation

Although caffeine has been shown to increase endurance time, further research shows it may actually blunt the effect of creatine, a popular and well-researched compound known for its consistent ergogenic effects. In a study evaluating the effect of pre-exercise caffeine ingestion on both creatine stores and high-intensity exercise performance, caffeine totally counteracted any effects of creatine supplementation. It was suggested that individuals who creatine load should refrain from caffeine-containing foods and beverages if positive effects are desired.

The Downside of Caffeine

Despite coffee/caffeine’s positive effects on psychological states and performance, there are numerous documented risks that must be considered when consuming caffeine, whether for performance-enhancing effects or simply as a part of daily dietary consumption.

Caffeine stimulates the central nervous system and can produce restlessness, headaches, and irritability. Caffeine also elevates your heart rate and blood pressure. Over the long-term as your body gets used to caffeine, it requires higher amounts to get the same effects. Certainly, having your body in a state of hormonal emergency all day long isn’t very healthy.

Caffeine is also a diuretic and causes a loss of fluid, which then leads to a dehydrating effect. This is obviously not conducive to fitness activities such as resistance training, as fluid is

needed for the transfer of nutrients to facilitate muscular growth. It is also important when considering the further loss of fluid while exercising in hot environments.

Perhaps the most important long-term problem is the effect of caffeine on

counteracting this deficit.

Caffeinated Conclusions...

Though caffeine has some benefits in relation to exercise performance, risks have been documented. Most problems seem evident with very



sleep. The half-life of caffeine in the body is about 6 hours. If you drink a big cup of coffee with 200 mg of caffeine at 4PM, at 10PM you still have about 100mg in your body. By 4AM, you still have 50mg floating in your system. Even though you may be able to sleep, you may not be able to obtain the restful benefits of deep sleep. What’s worse, the cycle continues as you may use more and more caffeine in hopes of

high consumption. The American Heart Association says that moderate coffee drinking (one or two cups per day) does not seem to be harmful for most people. As with everything else, moderation is the key to healthy caffeine consumption. Further research is needed to clearly determine whether the performance-enhancing benefits of caffeine outweigh the potential risks.

About The Author

Jon Gestl, CSCS, is a Chicago personal trainer and fitness instructor who specializes in helping people get in shape in the privacy and convenience of their home or office. He is a United States

National Aerobic Champion silver and bronze medalist and world-ranked sportaerobic competitor and editor of the fitness ezine “Inspired Informed and Inshape.” He can be contacted through his website at <http://www.jongestl.com>. jongestl@jongestl.com

Orienteering World Championships are coming

August 1st-5th will mark the Annual World Orienteering championships in Aarhus, Denmark. A total of 41 of the 48 IOF (International Orienteering Federation) full-member nations have submitted entries. 348 athletes - 154 women and 194 men - have been registered to compete, and there will be 31 women's and 38 men's relay teams. Total number of entries is 450 which is the most in any World Championship event thusfar.

Could it be much longer before the Olympics catch on?

Info at: <http://www.woc2006.dk/>



A new website is aimed at helping adventure racers advance their training. Navigation Games readers can get a free \$79 assesment by using discount code: navgames06 at checkout. Check out www.ARcoach.com



What is this a picture of & where is it at? Send your guess to Info@NavigationGames.com and add the word "Guess" to the subject line. We'll even send you a prize if you're first! As tough as it may seem, chances are, you've seen it.

Photo courtesy of USGS



Primal Quest 2006 Top Ten

Rank , Team, Time-in. Race started at 6:36am, 6/25/06

- 1 Nike PowerBlast 7/1 05:45 AM
- 2 GoLite/Timberland 7/1 06:43 AM
- 3 Merrell/Wigwam Adventure 7/1 12:32 PM
- 4 Supplierpipeline 7/1 12:34 PM
- 5 Salomon / Crested Butte 7/1 01:24 PM
- 6 Bjurfors Adventure Racing 7/1 03:21 PM
- 7 SOLE 7/1 04:58 PM
- 8 OrionHealth.com 7/1 08:13 PM
- 9 Spyder 7/2 04:48 AM
- 10 Nike-Beaver Creek 7/2 01:00 PM



Last month's picture of Stone Mountain, GA was correctly identified by John Whiteside of Fountain Hills, AZ. John wins a custom Navigation Games Headsweats skull-cap. Over 50 people got it right, nice work!

Team Profile

Adventure Racing team Enduraventure

Meet Team Enduraventure

So who are these guys? If you are into the Southeast racing scene, there's a good chance that you already know about them. For those outside the region, they may be coming to an event near you soon enough to introduce themselves.

In 2005, this team of amateurs was sponsored by and raced as Adventure Sports Magazine SE. Near the end of the year, the abrupt disappearance of the magazine left the team without a backer, hence the name change to Enduraventure. An aggressive race schedule and podium presence in eleven of twelve USARA sanctioned events last year earned the team several thousand dollars in prize money and the number one position in the inaugural USARA national ranking system. Not a bad year for a rookie team, still figuring things out, in a sport with such a steep learning curve.

For teammates Lisa Randall and James Holmes, 2005 served as their first full season in the sport. Both athletes have extensive histories in competitive cycling so the switch to Adventure Racing seemed rather natural. Lisa, a civil engineer by day, was a competitive mountain biker and former multi-year Georgia State Cyclocross champion. When not developing software, 6-foot 5-inch, 200 pound James is a devoted roadie who has been racing mountain



bikes since age 15. Bryan, a software analyst who recently completed his 50th adventure race, leads the team with experience. Bryan has raced on several teams at every level of the sport since 2001. His race resume consists of many accomplishments such as a win at Odyssey's Beast of the East and attendance in each of the two recent installments of the AR World Championships and Primal Quests. Bryan says of his current teammates, "In all the racing I've done, I've never raced so hard, so fast, nor hurt so much as I have since meeting these guys." The team is rounded out with an extended roster of teammates; cross country phenomenon, Allen "Zoid" McAdams and even a few developing talents.

The team gets better with every race they attend. Lisa has developed into an orienteering talent, capable of competing with the best. She proved it with an impressive performance early in the USARA Championship race. "It's a great relief to be able to spread the burden and pressure that comes with navigating across teammates," explains Goble. "And James... well you can just take a look at him and see that he's just a physical monster. He gets us through the tougher terrain of every race by pushing, pulling, feeding, dragging or carrying whatever we need." In watching this team race together, it is apparent that they have a great balance of talents and potential. Time and growth is all this team needs

to become a serious threat at the national level.

Goals for the current race season? "To build upon our success of last year," says Lisa. The plan is "to go into every event with the strongest team possible and at least give ourselves a shot at coming out on top, regardless of the race's location, length or format." The team regularly competes against regional powerhouses such as Litespeed, CheckpointZero, Mighty Dog and Hooked on the Outdoors so that is rarely an easy task.

the dust settled. Energized by their impressive performance, the team is looking to continue racing outside of their region, hoping to raise a few eyebrows along the way.

Enduraveture is slowly gathering up the right gear to give them the optimal support out there on the tough courses. This season, they established a relationship with Niterider, and has been racing exclusively with Moab HID bike lights. "They give us such an advantage when moving at night," says Goble. "We're faster, lighter, and

to this already talented young team.

www.Enduraventure.com

Keep your eyes open for this team on the move at the following events:

July 8 - 9
CP Adventure's Ultra O-gaine,
Cartersville, Georgia

August 12
Challenge Four AR, Woodstock,
Georgia

August 19 - 20

Midnight Rush,
Clayton, Georgia

September 23
- 24
Overmountain
Extreme
Adventure Race,
Morganton,
North Carolina

September 30 -
October 1
NOC 30 Hour
Adventure Race,
Bryson City,
North Carolina

October 5-8
Gravity Play's
Xstream
Expedition,
Moab, Utah



The team did manage to pull off some tough wins over the past two years, fourteen in total, making their claim that they belong in the ranks of these teams they admire. Most recently, Enduraventure gave nationally known teams Sole and EMS a run for the money at the Michigan Coast to Coast, eventually placing 3rd and earning a \$2000 check when

we can spot CP's from a mile away. They make such a difference that we usually end up taking them with us on any leg with tough night nav, bike, hike or paddle." The team races in CW-X supplied uniforms and super-light Leki trekking poles; both of which minimize muscle fatigue and damage to their feet. Being outfitted with the right gear will just add value

Photo's courtesy of:
www.CheckpointZero.com

The Scout races are coming. Check out
www.ScoutAR.com and
www.GilmoreAdventureRace.com

PQ-Play of the Game

Want to know how team Crested Butte shot through the rankings so quickly from 13th to 5th? Pure strategy. We often look at the top ten and assume it's all muscle and little strategy at that level, though that wasn't the case in this years race, and it had a profound impact of pushing one unfortunate team out of the money.

Team Salomon/Crested Butte arrived at the Orienteering section of the race in the La Sal Mountains in 13th place. They were informed that skipping that section would cost them a 10-hour penalty. Knowing that top 5 teams were taking quite a bit of those 10 hours to complete the section and realizing how their sleep deprived bodies could take advantage of that ten hours to rest, they opted to accept the penalty and slept it out.

Hats off to Salomon/Crested Butte for the play of the game.

The American Bushwhacking Club

'Freestyle'
long-distance, cross-country
navigation competition

<http://americanbushwhackingclub.org>

Ambush
Adventure Racing

Hardcore adventure racing

*our unique formats are challenging
for all ability levels and we never
forget that adventure racing
is supposed to be FUN!*

<http://ambushadventuresports.com>

DESERT RAGE

San Diego 10-21

Phoenix 11-4

Finale: Las Vegas 12-2



Women's Races

Los Angeles 9-9

Phoenix 11-18

SierraAdventureSports.com

TERRI SCHNEIDER

extreme ultra-endurance athlete



One of the most experienced multi-sport female athletes and coaches in the world offering:

- Personal Coaching
- EnduranceOnline Training
- Keynote Speaking

Inspiring each person to
EMBRACE CHALLENGES
in their own lives!



www.terrischneider.net
831.662.3993

Wildernut



Photography
www.wildernut.com

Wildernut

Human Powered Outdoor Adventure Photography

Wildernut@wildernut.com

[illegible]

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
Help Wanted: Ad Salesperson

Do you have a long list of contacts in the Outdoor/Adventure/Travel business? Like high commissions? Navigation Games is looking for an ad salesperson. Please e-mail us at Info@NavigationGames.com and let us know your interested

Event Directors

Help us spread the love about Navigation Games Magazine. We've got postcard/brochures about the magazine. Just shoot us an email with your address & number of participants to:

Info@NavigationGames.com

Have I Gone Far Enough?

by Mark Manning

Have I Gone Far Enough?

On the bike it's easy, in the kayak it's near impossible but on foot it should be much simpler. What am I referring to? No, not that! And not eating either. It's judging distance or how far you've gone. It always seems like you've gone way too far and yet most often you've probably not gone far enough.



Judging distance on foot has always been the most challenging aspect of navigation for me. I'm not very good at counting in my head and I'm way too social to focus on counting without talking to my teammates or the casual passer by. When I first started orienteering I would wonder why none of the other competitors would say "hi" when they passed me. I thought they were all just rude and obnoxious, but it turns out they were

counting in their head and were far too busy to talk. I tried it and could never really get the hang of it for any useful length of time.

Of course the other way to judge how far you've gone is to time yourself over known distances, then use a stopwatch to calculate how far you've gone. This is fine until you pause to look at the map and forget to pause the stopwatch or worse still, forget to start it again at the last known point. With all the things going on in a race I needed something that was more idiot proof and would do the calculations for me.

I looked to the simple pedometer as the solution to the problem. You know the devices that people clip to their belt to tell them how far they've walked or ran giving them some idea of the calories they've burned. I shopped around for a couple and tried them out at home.

So what was I looking for in a pedometer for adventure racing? Firstly I wanted accuracy to 1 meter or 100th of a mile. The higher the granularity on the pedometer the more accurate I could be over shorter distances. I wanted to be within a couple of meters not 10 or 20 meters of a CP.

Next I wanted to be able to easily read the numbers while still mov-

ing. Most of the pedometers I found had numbers on the front not the top. This meant you had to unclip the device to read it. Not much good if you're still running. The numbers had to be on the top.

After racing with one of these devices I found it really worked well. I also found that they need a lot of protection. They are not designed to be dragged through a swamp or even placed near water. A trip in the kayak would turn the screen blank. It was basically useless when wet so a waterproof pedometer is really important for anything but desert. Another problem that I found is that most pedometers are not strong enough for the average bushwhack you find during an adventure race. The clips are designed for walkers and joggers not



adventure racers. If you want to keep the pedometer for the whole race it needs a strong clip or attachment.

All of these features put together make for a really useful navigation

tool that will greatly enhance your accuracy during the trek, especially for those who have trouble counting like me.

Mark Manning. Creator of the Worlds first race ready waterproof pedometer & owner of www.ARnav-supplies.com

Opening Day at the Lake 2006
The Lake Tahoe Convention and Visitors Bureau held it's first annual Geocaching event with over \$10,000 in cash and prizes hidden in 50 random caches placed around the lake. Competitors who won the prizes were the first to find these caches, while others won in the post event raffle. Check out Geocaching.com for more info

Backpacker Magazine is hosting a clinic near you!

While it may seem strange for us to tell you about a series of events being hosted by a competing magazine, we don't care. We think what they're doing sounds pretty awesome.

Backpacker Magazine is coming to a town near you!

RETAIL EVENTS

At every retail event, the team will deliver an information-packed hour-long presentation covering the gear, technique, trip-planning, meal-planning and fitness tips you need to Get Out More. Each of these events will be rounded out with an audience question and answer session, and door prizes from our sponsors.

FESTIVALS

Meet the Get Out More team at the festivals listed on the schedule for great samples from our sponsors, literature and a Get Out More goody bag. Check out our sponsors gear in our ultimate base camp, get your picture taken with the Get Out More mobile, or ask Matt and Carrie your questions about backcountry travel and life on the road!

SKILLS CLINICS

Backpacker wants to help you Get Out More, so we've introduced Backpacker Skills Clinics to teach you the skills you need. Check out our skills clinics for valuable hands-on experience in climbing, backcountry cooking, paddling, women's specific skills and more.

Get the full list of events at:

<http://www.backpacker.com/getoutmore/events.html>

Plotting on the Fly

...turns out, not everyone's a fan.

Trailblazers Adventure Club has one of the most active message boards in the US. A member recently posted a suggestion for race directors to quit forcing people to plot checkpoints on the fly. What do you think?

Posted: Mon Apr 03, 2006 5:23 pm
Post subject: Racer Petition: End On-the-Clock-Plotting

An open letter to adventure race directors:

It seems that there is a growing trend of adventure races in our region that choose to withhold all course information, checkpoint coordinates and maps until the actual start of the event. This forces participating teams to "plot on the clock" and it's a trend that I would implore you to help end or isolate to confined/controllable situations. I appreciate all efforts to maintain the secrecy of your course as it helps ensure a level playing field among all teams. It's my opinion that the practice of plotting on the clock is degrading the adventure racing experience more than it's enhancing it and here's why:

It's pretty easy for ANYONE to make a mistake when plotting 30 CP's, whether you're on the clock or not... and if it happens, it means that a team could end up in hazardous terrain, on private property, or outside the area permitted to race in. My personal opinion is that it's a nice special test

appropriate for small, sprint races that are confined to a certain area (park boundary, lake, etc.). But is plotting a 6/7 digit number on an X-Y grid in itself a true adventure racing skill? In my opinion, no. The real skill lies in choosing a route and navigating to each CP.

On the clock plotting is a growing problem because EVERYONE is capable of making mistakes, including RDs, even if they've had their courses fully audited. Written course instructions can sometimes be incomplete, ambiguous, and sometimes just incorrect. When teams are put in the situation of plotting on the clock, they are under the assumption that all of the information they've been provided is 100% dependable & complete and therefore are far less likely to ask the RD any questions before setting out onto the course. If they do ask questions, you've already created a situation where the playing field no longer is level because one team has information that others don't. By the time problems are identified and addressed, there's usually little that an RD can do to salvage the integrity of a race.

The solution(s):

(1) Pre-plotted maps
Understandably, this may require

Veronica Williams of Team P.I.T.A. working on her checkpoints before going on to win Desert Rage Las Vegas.

more work on the part of the RD, but pre-plotted maps ensure that your CP's are on the features you mean for them to be. As long as the RD is navigationally competent, there is less margin for error that commonly come along with providing UTM's (wrong datum, improper reliance on GPS generated coordinates, etc)... which has posed major problems for

RDs from grass-roots to the World Championship level.

(2) If you're going to provide coordinates, maps and CP's should be given to racers with a reasonable grace period to plot points and complete at least some basic analysis of the route. For example, for a race with 15 CP's, the maps and coordinates might be

distributed one hour prior to the actual start time. Prior to actually starting the race, the RD gathers all competitors and answers any questions the racers have. With early distribution of maps, there is a threat of teams illegally scouting areas of the course, but with a clear rule forbidding it and an appropriate grace period this shouldn't be a problem.



(3) Have a master map accessible and allow teams to copy the CP's from the master map to their set of maps. This is similar to number one, but saves the RD the hassle of pre-marking maps. But it's critical that enough master maps are prepared for the large volume of competitors needing to copy them

(4) As mentioned earlier, limit on the clock plotting to confined areas such as small parks with clear boundaries or a subset of the courses' CPs.

Over the years, on-the-clock-plotting has actually been one of our competitive advantages, but one we'd gladly exchange for higher quality races in our area. More times than not there are so many recurring problems as a result that tarnish these races... many completely preventable with a slight change of format.

So RD's please... silence the lambs.
Jay Curwen
I Sold My Soul to Buy Gear

PostPosted: Mon Apr 03, 2006 5:45 pm
Here here...agreement on all points.
jfarmer
AR Junkie

PostPosted: Mon Apr 03, 2006 5:47
Well put Bryan. I agree 100%. If RDs feel that plotting on the fly is a necessary skill then confine it to a rogaine section of the course or something like that. Like Bryan, I have an advantage in this area because I've done it so often. I've even plotted on the fly before while on the course. I felt all tingly afterwards Wink However, it just leads to problems. I add (virtually) my John Hancock to this petition.
kfordham281
Site Admin

PostPosted: Mon Apr 03, 2006 6:43 pm
Interesting topic Bryan. I for one have used this in all three races I have directed.

2004 MRAR: Wanted to prevent follow the leader situations. Granted the rogaine start itself did this but wanted

Over the years, on-the-clock-plotting has actually been one of our competitive advantages

some separation as well.

2005 A24: Again, separation was the reason here.

2005 MRAR: Again, separation was the reason here. I think the bike/run ride and tie did this for me however.

Really the key reason why I use the "on the clock plots" are for separation and to keep the course secret as long as possible. I think the starts for both MRARs likely took care of the separation I wanted, so perhaps those uses of on the clock plots weren't quite as necessary. For the 2005 A24 I didn't like the idea of a sea of people all on that one FS road leading towards the WW Center. With narrow roads, large drops and hidden corners I wanted to space out the teams a little.

Solution 1: Not a huge fan of this because if the FS or conditions change and you have to alter the course before the start those preprinted maps

might not be valid anymore.

2) Humm....kinda like this idea.

3) Could be a problem with everyone getting fair access to the maps when they need them due to space. If you have enough master copies everything is ok I think.

4) Way ahead of you here...already planning on using this! Oh yeah, and I used it in the 2005 MRAR.

I might try solution 2 for the Adventure24 this year. My question to the racers however is that if you MUST have a way to separate teams, what other ways (besides the ones I've already used) could this be done without on the clock plotting and a staggered start (which I don't like)?

Jay Curwen
I Sold My Soul to Buy Gear

PostPosted: Mon Apr 03, 2006 7:05 pm
I've been in 3 races where "Follow the leader" was avoided 3 different ways:

1. At the USARA Nationals in LA a few years back, they gave out CPs and announced that not everyone got the CPs in the same order and there might be some that other teams got and you didn't...you only knew you were right by naving yourself. Drawbacks - Hard to keep up with... you better make sure the punch holes match. Hard to make sure everyone has the same distance for an optimal course.

2. BRAR had those riddles a couple of years ago...I think we all know how that went.

3. Hound Dog urban race had a cen-

tral TA and sent different teams out on different legs at different times... This was the best solution as organizers could easily control traffic on portions of the course prone to congestion and you had no clue where you were relative to anyone. Drawbacks - you need a pretty specific venue.

Thanks to all you RDs out there...It's a thankless job most of the time!

Litespeed/Inov8
James Holmes
Dodging Sleep Monsters

PostPosted: Mon Apr 03, 2006 7:11 pm
Kevin, thanks for taking the time to solicit input from the community to hopefully improve your event(s)! I don't have a panacea for you, but I can tell you that placing 85 index cards on a string up a hill is not something I want to see again...

That was one of the biggest clusters of people on top of each other. It could have led to carnage, but I think everyone got out ok.

Tony Berwald
Time to Buy Stock in REI

PostPosted: Mon Apr 03, 2006 7:16 pm
I third Bryan.

I used to be a fan of giving maps/passports out at the start of the race (NGAR 03 and NGAR 04). However, I've actually become convinced that giving maps out well before the race start (ideally the night before) is the best way to go.

We discovered that "plot on the clock" actually causes a huge separation between front of the pack and

back of the pack teams. Experienced teams can plot maps in 20 minutes, leaving most of the CPs to their support. Inexperienced teams can take as much as three hours. From a pure convenience perspective giving maps out before the start of the race offers several benefits to the RD:

- 1) Safety, particularly if the water section starts the race. You want to be able to monitor the water section the best you can, and with team spread out over hours it becomes nearly impossible
- 2) Setting volunteer expectations. Much easier to let volunteers know when they will be finished if everyone starts together
- 3) Opportunity for teams to ask questions and identify any mistakes prior to the race starting

Not that this will apply to us anymore, but if we ever direct a race

again we will always give the maps out the night before.

Tony Berwald
Time to Buy Stock in REI





Clockwise from above: Team Nike/Powerblast crosses the finish line at PQ 06 by Tony Dizinno, Team Merrel biking by Dan Campbell, The Priest and Nuns, Team WickedAR.com lending a hand by Chris Halper, Traverse of Priest and Nuns by Dan Campbell. All photo's courtesy of Primal Quest



Nettles and reentrants and BEARS (oh my) North American Rogaine Championships

Story by Susan Douglas, Photo's by Laurent Fournier

**June 10 & 11, Allegany State Park,
New York**

A pack of over two-hundred athletes lined up at 11:00am on Saturday, June 10 to start the 2006 North American Rogaine Championship competition with all 3 categories – 6, 12 and 24 hour – starting out at the same time. People started running in all different directions from the base camp at

Camp Allegany since the park provided a huge area with many potential route choices for teams depending on their skill level, speed, and which event they were competing in.

The Rochester Orienteering Club was the host for this event for the second time, as they organized this event in Allegany State Park in 2000 as well. It was easy to see why this park was chosen since it consists of very hilly terrain, mostly wooded and runnable, with great views and large sections that were extremely challenging with no established trails or other obvious features other than hills and reentrant systems.

Racers were warned of two risk factors by the club before the event – stinging nettles and black bears. A few teams spotted some of the bears during the race but it was always from a safe distance. Locations of some nettle patches were marked on a map for teams at the pre-race briefing but there other patches in various that did provide a nice non-cafeinated jolt for alertness for those teams

doing the 24 hour. Several control flags with high point values were placed at the bottom of huge reentrants which was tough on feet to travel down, but

exhilarating when the flags were finally spotted and punched.

An excellent feature of the course was the use of the Sport-Ident electronic scoring system at all the control points and at the base camp for those who stopped to rest. This enabled the race organizers to gather much more accurate information about speed and distance traveled and was heartening for teams to hear the cheerful double-beep when they punched in at a flag.

The results of the 24 were team

TGFQ finishing first overall and in the male category; team UNO DUO finishing second overall and first in the male masters category, and team Hillbillies finishing third overall and first in the coed masters category. Feedback from participants as to the overall quality of the event was uniformly positive. It was a weekend of fun and adventure for everybody who came. NG

Racers were warned of two risk factors by the club before the event – stinging nettles and black bears



Clubs

Adventure Racing

- AZ
AZ Adventure Racing Buddies
<http://sports.groups.yahoo.com/group/aarb/>
- CA
SCARABS
www.ARBuddies.com
- CO
Front Range Outdoor Groupies
www.coloradofrog.com
- FL
Trailblazers
www.TrailblazerAR.com
- WeCeFar
WeCeFar.com
- IL
Chicago AR Associaton
ChicagoAdventureRacing.com
- MI
Southern Michigan Adventure Club
www.smacworld.com
- VT
Green Mountain AR Association
www.gmara.org

Geocaching

- MD
Maryland Geocaching Society
www.mdgps.org
- NM
Cache New Mexico
www.NMGeocaching.com
- TN
Great Smoky Mt.s Geocaching Club
www.gsmgc.org
- US
www.us.orienteering.org
- AZ
Phoenix Orienteering Club
PhoenixOrienteeringClub.org
- Tucson Orienteering Club
TucsonOrienteeringClub.org
- CA
San Diego Orienteering Club
<http://www.geocities.com/Yosemite/Trails/9636/>
- ID
City of Trees Orienteering Club
www.ctoc-boise.org

Orienteering

- New England
New England Orienteering Club
www.neoc.org/
- OH
Orienteering Club of Cincinnati
<http://ocin.org>
- WA
Cascade Orienteering Club
CascadeOC.org

Races/Promoters

- U S
Primal Quest
www.EcoPrimalQuest.com
- AZ
Sierra Adventure Sports
www.SierraAdventureSports.com
- FL
S.O.A.R.
www.SOARteam.com
- IA
Soar Adventures
www.soar-adventures.com
- OH
Ambush Adventure Sports
AmbushAdventureSports.com

Send us your club info to
Info@NavigationGames.com

Need Training?

Adventure Racing

- Genesis Adventure Training
<http://www.genesisadventures.com>
Genesis Adventures offers how-to clinics for adventure racing and triathlon as well as personal coaching to get you ready for your adventure.

August 4th, Allamuchy, NJ
August 25th, Pachaug, CT
September 23rd, Douglas, MA
October 13th, Ringwood, NJ
- Our Adventure Racing Camps are designed to introduce beginners to the sport of adventure racing. We will spend the day learning new skills and immediately applying them while we hike, bike, and paddle in beautiful outdoor locations. There is no experience necessary, just a desire to learn new skills, meet other adventure racing enthusiasts, and have fun. As an added bonus, all 2006 Adventure Camp participants will receive a new pair of Merrell shoes!
- Odyssey
<http://www.oarevents.com/>
Aspiring adventure athletes interested in being a part of this fast-growing sport, and experienced racers who want to become more proficient, will learn necessary outdoor skills at the Odyssey Adventure Racing Academy held at beautiful Camp Washington Carver. Those skills include orienteering, whitewater paddling and swimming, mountain biking, and fixed ropes skills (ascending, rappelling and traversing).
- Gravity Play
<http://www.gravityplay.com>
Looking to do your first adventure race? Or do you need certification for Primal Quest or another expedition race? Camp Xstream is just the place. Attend our 2 or 3 day camps in the spectacular canyon country of Moab learning everything you need to know.

- Team SOLE – E-camp
<http://www.ecampinternational.com>
E-Camp is different from other camps in that we have a focus toward racing. It doesn't mean Expert Racing, it just means athletes who are seeking to gain a competitive edge. E-Camp isn't for everyone, it's hard, it takes mental fortitude and a bit more than the average level of fitness. ALL levels of adventure athletes who are interested in improving their skills all taught in a real race atmosphere are encourage to attend.

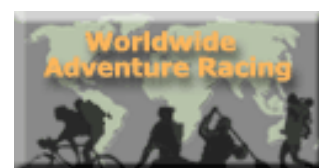
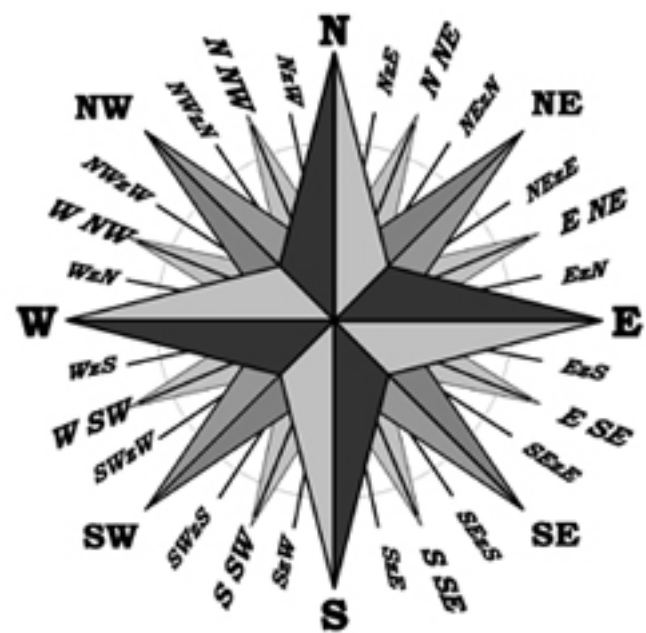
<http://www.hairyscaryevolutions.com>

<http://www.goalsara.org>
- Geocaching

REI
<http://www.REI.com>
REI frequently holds Geocaching training as a part of their regular outreach clinics. For a small fee, you'll be familiarized with the sport of geocaching, learn all about how to use your handheld GPS unit, and get a chance to move around and see how the unit works. Also look for their class "Introduction to GPS" or the "Field GPS Use".
- Orienteering

Orienteering is one of the fastest growing sports in the world, and your absolute best way to get training is to attend an Orienteering meet. Frequently, a basic Orienteering clinic is made available to anyone who shows up prior to the meet, though check with the club to find out for sure. There is usually a small fee for participating in the meet, though well worth if for what you'll learn. For your local O-club, start your search at: <http://www.us.orienteering.org/>

Magnetic declination, sometimes called magnetic variation, is the angle between magnetic north and true north. Declination is considered positive east of true north and negative when west.



bettysport

Local, original and dedicated to women

Zoot, Pearl Izumi, Sugoi, Nike, She Beest, Adidas, Asics

12th & Lamar
512 473 0040
bettysport.com



ATLANTA, GA · CHARLOTTE, NC
CHATTANOOGA & KNOXVILLE, TN
COLUMBIA & GREENVILLE, SC
BIRMINGHAM, AL · CENTRAL FL

See you in August!

Send us your race reports and
photo's!

Tell someone else about
Navigation Games Magazine

Info@NavigationGames.com

NAVIGATION GAMES