

# Chainstay

The Peninsula Bicycling Association

February 2013

Volume 43, Issue 1

## Greetings from PBA's New Chainstay Editor and Webmaster By Scott Farrell

### Meeting



Monday  
February 11, 2013

Dinner 6:00 p.m.  
Meeting 7:00

Angelo's Steak House  
755 J. Clyde Morris Blvd  
Newport News

Program: Newport News  
Bike Lanes

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Check the PBA Website:  
[www.pbabicycling.org](http://www.pbabicycling.org)

The DEC/JAN Chainstay announced our transition to an electronic Chainstay. The March 2013 issue will be our first electronic only issue. The Chainstay can be found at <http://www.pbabicycling.org/chainstay.html>. There is a new link in the left margin of PBA's webpage. The Chainstay will appear on PBA's website instead of being sent via e-mail. This should resolve any anxiety associated with our e-mail addresses being shared with strangers or files being lost in spam filters. Simply visit the address above for the latest revision at your convenience. I plan to upload each issue on the 1st of the month and then archive past issues on the website (location TBD). The Chainstay will be published in "PDF" format which is readable on virtually any computer, tablet or smartphone with free software that's often preinstalled at the factory.

While I'm writing, please allow me to share a few benefits of "e-Chainstay" with those who may be apprehensive about the change:

**COLOR** - Did you know Chainstay is published in color before it is printed in black and white? Now readers will see the Chainstay in color!

**CURRENT** - Sometimes announcements miss the printing deadline. They're also three weeks old by the time they're read. This is no longer an issue since I can make changes on the fly and upload revisions. Clicking

the link on the website will always present the most recent revision of the Chainstay.

**DYNAMIC RIDE SCHEDULE** - Short notice additions or cancellations can be made at any point within reason. Again, just click the link for the latest revision. I'm brainstorming ways to merge the Chainstays and the website's ride schedules. Until then, updates to both schedules will be identical.

**COST** - An electronic Chainstay presents obvious reductions in printing and postage costs as well as labor.

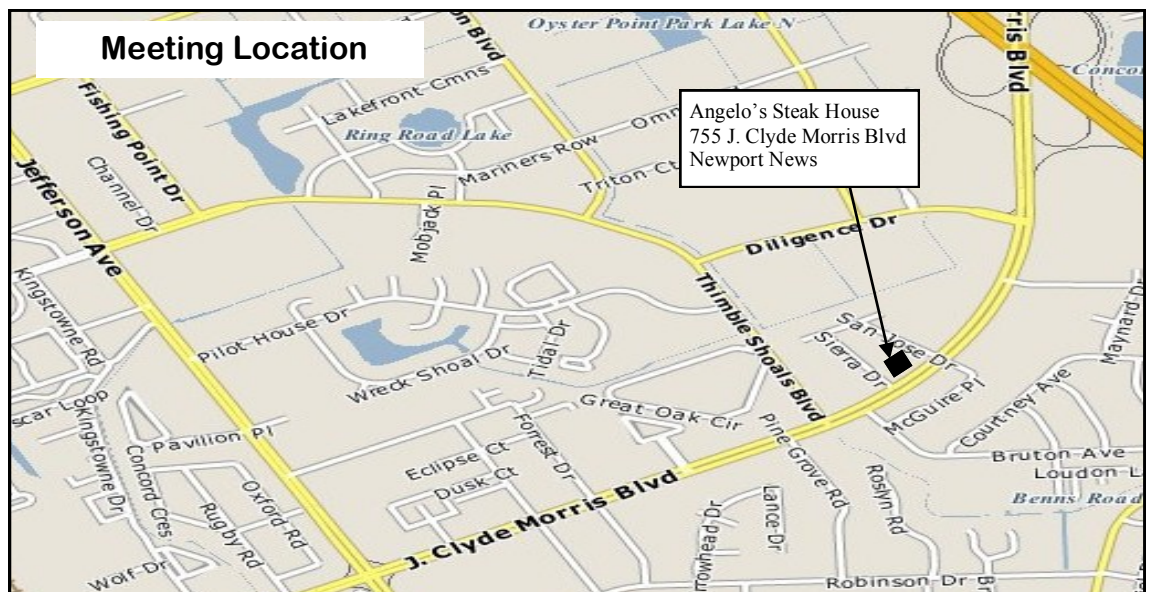
**ACTIVE** - All web addresses will be clickable links which take readers to the featured content. This makes the sharing of web addresses more practical.

**SCALABLE** - Admit it... Sometimes larger text is nice! An electronic Chainstay can be enlarged for easier reading.

Initial changes to the website will be subtle. The electronic Chainstay is first. Next will be a streamlining of the ride schedule(s). I may test some new color schemes after that. My goal is to modernize our look just a tad, combine repetitive content (Chainstay vs. website) and add other information as approved by the Board, all without making the site too busy. Other changes may follow in the future. Please feel free to address concerns through the Board or contact me at [StealthTDI@spamarrest.com](mailto:StealthTDI@spamarrest.com). Put "PBA" anywhere in the subject to bypass my spam filters.

### Meeting Program—Newport News Bike Lanes

Dan Blackburn of the city of Newport News will provide an update on the bike lanes within the city.



# The President's Corner



In the future, if you need to receive a paper version of the Chainstay, call me at 804-642-2825. I will mail a paper copy to you.

You will be mailed a post card and will probably receive an email the month your dues are required.

I would like to thank the following wonderful Ride Leaders for the year of 2012: Robert Prue, Paul Krieschen, Ron Myers, Elaine and Marty Cardwell, Art Wolfson, Bob and Linda Carter, Jim and Nan Mack, Dave Sebring, John Atwood, Mark VanRaam, Sharon Bochman, Sam Earl, Jack Liike, Robb Myer, Ron Hafer, Randy Howell, J.D. Hawthorne, Charlie Park, Bill Monroe, John Parker, Todd Chopp, and Sandy Butler.

Howard and Leslie Beizer were given an award for their work on the Chainstay, the Weenie Ride, the Hot Diggity Dog Ride, the Surry Ride, Route Markings and for hosting the Christmas Party.

Don and Eleanor Hubbard received an award for hosting the Board Meetings for a long..long time.

Mark VanRaam - Handling sag for the Weenie Ride and the Surry Ride.

Jim Mack - Weenie Ride Food and Certificates.

Bill Monroe for his work on the Adopt-A-Spot.

Brent Weathered - Most Improved.

Bill Nuckols - Port-a-Johns and Route Markings.

Sam Earl - Route Markings.

Ron Hafer - Ride Leader.

Robb Myer - Bike Journal.

Sandy Butler - Spatula Award.

Our next meeting will be February 11, 2013.

Happy Trails,

*Cindy Wong*

The PENINSULA  
BICYCLING  
ASSOCIATION  
P.O. Box 12115  
Newport News, VA  
23612-2115

PBA Affiliations:

Virginia Bicycling  
Federation

League of American  
Bicyclists



2-Chainstay

## For Sale

**2006 MADONE 5.2SL** 52cm Road Bike. Ultegra 6600 10 speed, 53-39, 12-25. Purchased and serviced exclusively at Bike Beat Kiln Creek (all records available at BB). Italia Seat with Bontrager seat bag. Madone 5.2SL is less pedals. Selling price is \$1200. Contact Mel Moss at 757-867-8943. (12/12)

**PBA members place your free cycling related for sale ad. Send ad to Scott Farrell email: StealthTDI@spamarrestt.com.**

**PBA Website:  
www.pbabicycling.org**

## PBA board meeting planned

The PBA Executive Committee and Officers will meet at 6:00 p.m. on Monday, February 11 at Angelo's Steak House, 755 J. Clyde Morris Blvd, Newport News. Committee and interested members welcome. Business includes planning 2013 events.



2012 Officers			Committee Chairs		
President	Cindy Wong porscheccindy@aol.com	804-642-2825	Ride Schedule	Jack Liike jliike@hotmail.com	788-1196
Vice-President	Bill Nuckols wmnuck@cox.net	826-8313	Membership	Leslie Beizer	356-1451
Treasurer	John Parker johnj1jr@verizon.net	898-7147	Publicity	Leslie Beizer	356-1451
Secretary	Vacant		Safety	Gale Harvey	723-7148
Executive Committee Members	Sandy Butler Ron Hafer recumbentron@msm.com Don Hubbard	872-9271 877-7106 595-2897	<b>Newsletter</b>		
			Editor	Scott Farrell StealthTDI@spamarrestt.com	

*Chainstay* is published 11 times a year with a combined issue for December/January. **All submissions and advertising copy are due by the 10th of the month prior to publication.** Classified ads are free to club members only. Send all newsletter submissions to 22570 Tally-Ho Dr, Carrollton, VA 23314 or email: hbeizer@aol.com. (Send all other information to the Club P.O. box). Ride leader volunteer and ride inquires should be directed to the Ride Schedule Leader

*Chainstay* is produced on an IBM compatible PC using a Hewlett-Packard Laserjet 1012 for output. Principal software is Microsoft Publisher and Microsoft Word.

# On your e-bike: European craze powers into UK

By Peter Walker

Guardian reporter Peter Walker tries out the new e-bike. The cycling sensation that is sweeping through Holland and Germany.

At first glance it looks like just another cycle shop, albeit a slightly posh west London one, stocking a mix of sturdy commuter machines, mountain bikes, small-wheeled folding ones, even a tandem. But a closer look reveals the boxy battery packs attached to frames or luggage racks. These are e-bikes, and proponents say they could change urban transport forever.

Electrically assisted bikes, the sort that can be used without a licence or insurance if they stay within certain power and speed restrictions, remain relatively rare in Britain, but elsewhere in Europe they are increasingly big business.

Last year 310,000 e-bikes were sold in Germany, a 55% year-on-year rise. In all more than 700,000 were sold in western Europe. The equivalent figure for electric cars, long touted as the low-carbon transport of the future, was just over 11,500, even with the millions spent on subsidies and on-street charging points.

The UK saw a relatively paltry 20,000 e-bike sales last year, but supporters hope the electric bike could help overcome the longstanding British resistance to cycling as everyday transport. E-bikes, they argue, which provide a smooth but significant extra kick when the pedals are turned, allow people of more or less any age or fitness level to whirr smoothly from place to place, even up steep slopes, arriving unflustered and un-sweaty. This is particularly valuable, they add, in an era of ageing populations.

"You travel faster for less effort – who can argue with that?" says James FitzGerald, whose Suffolk-based Justebikes company has just opened the west London store, its first in the capital. "They're also safer for city cycling as the added acceleration means e-bike riders can move away from traffic lights more quickly. And in a city they're much more practical than an electric car." E-bikes, also known as electronically power assisted cycles (Epacs) or pedelecs, certainly seem to have a wide demographic appeal compared with regular bikes – a survey by the British Electric Bicycle Association found more than a third of purchasers were aged 50-59.

While the most common models tend to be commuter bikes, in FitzGerald's shop are folding models and electric mountain bikes, often bought by outdoor enthusiasts with ageing limbs or creaking knees. There is even an electrically assisted bakfiets, the traditional Dutch-style cargo cycle with a container at the front big enough for a couple of children and a weekly shop, the manual versions of which can require iron thighs for the slightest incline.

E-bike technology has moved on considerably from slightly clunky early incarnations. Batteries are lighter

and longer-lasting, while the Dutch-made Sparta brand sold by FitzGerald features such gizmos as an electronic speed and power display which doubles as an immobiliser - take it off the bike and the motor cannot be used.

FitzGerald says he has held talks with Norman Baker, the Liberal Democrat junior transport minister and semi-official voice of cycling in the government, over ways to increase the take-up for e-bikes, while the Department for Transport says it sees e-bikes as a potentially important part of wider strategies to get people on bikes.

It nonetheless remains uncertain whether they will take off in the UK, with its lack of a wider cycling culture: overall, the percentage of journeys made by bike every year is around 2%, against more than 25% in the Netherlands. The European Cyclists' Federation says Britons are little more likely to ride an e-bike than a normal bike if they feel the lack of dedicated bike lanes and other infrastructure makes it unsafe. E-bikes can also seem expensive to Britons unused to buying good-quality bikes: the well-made Sparta bikes sold by FitzGerald start at around £1,500.

Carlton Reid, editor of the BikeBiz cycle industry website, predicts that such factors will limit the growth of e-bikes in countries like the UK and US.

"There's no sign that e-bike sales in the UK are about to sky rocket," he predicts. "Because of its cycling infrastructure, the Netherlands has a ready market for bicycles and when Dutch cycle shop customers get older they naturally gravitate towards power assistance. Very importantly, the average selling price of a Dutch roadster is far above the average selling price of a standard bike in Britain. And Brits are not used to paying £1,000 for their bikes, so bikes that cost more than this are scary, scary expensive."

## What is an e-bike?

The point at which an e-bike becomes an electric moped, and thus subject to all sorts of laws about helmets, insurance and licences, is somewhat complex and covered by a range of EU regulations.

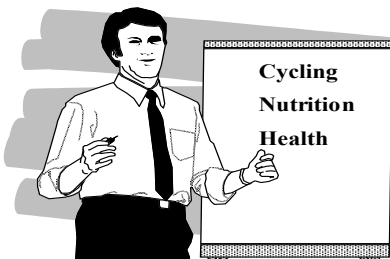
In the simplest terms, an e-bike must weight less than 40kg, have a power output of no more than 200w and must propel you to no more than 25kph, or just over 15mph. Crucially, they must (at least officially) only offer electric assistance, meaning the pedals have to turn for the motor to kick in even if there is a separate throttle.

In practice, put one of the modern machines on the top power setting and it will whizz you from a standing start to 15mph with the barest spin of the pedals. Some e-bikes come with a boost button taking them over 15mph, labelled with an unspoken wink as "off-road use only". This is most likely not legal, the DfT warns. Riders of any e-bike have to be aged over 14.

Some e-bike groups want the power and speed limits increased, but this has met significant resistance from cycling groups worried about such nippy, powerful machines sharing bike lanes with traditional bikes.



## In search of guest speakers



With the start of the regular club meetings comes an opportunity for would be guest speakers to come forth and volunteer to fill the monthly meeting program calendar. Anyone who is a professional in a cycling related field or who is knowledgeable about cycling related topics is encouraged to come forward and share their insights with the membership. If you are interested in making a presentation please contact Sandy Butler at 872-9271.

P.S. The club picks up your meal tab.

# The Power of Bicycles in Disaster Recovery

By Sarah Goodyear

We rolled out from the Bicycle Habitat store on Fifth Avenue in Brooklyn just after 10 in the morning on Tuesday, an admittedly ragtag assortment of about 40 people on bicycles loaded down with donations headed for Far Rockaway in Queens. We were pedaling panniers full of flashlights, backpacks jam-packed with diapers and wipes, and bike boxes stuffed with blankets and coats, all of them collected at the Brooklyn and Manhattan locations of the store over the previous week.

As we made our way through the dense traffic of Flatbush Avenue, still several miles from the devastation on the Rockaway Peninsula, many people hollered out words of thanks and encouragement. Some smiled and shook their heads in disbelief. Some laughed.

I could understand why they might be skeptical. After all, we were headed out to a scene where the debris filled an entire parking lot at Jacob Riis Park. Acres and acres of it, hoed into neat rows by Department of Sanitation vehicles. The contents of hundreds of homes, turned inside out by Sandy. We were riding alongside huge National Guard

vehicles filled with supplies and troops. What did our little convoy signify in all this madness?

But when we arrived at our destination – the Church of the Nazarene on Central Avenue in Far Rockaway – I was more than glad we had made the trip. Aaron Stewart-Ahn, a filmmaker and Bicycle Habitat

employee, had found the church and its pastor, the Rev. Leslie Mullings, after doing some research into what organizations were already hooked into the community and equipped to deliver direct aid to those most in need. With the blessing of Bicycle Habitat's owner, Charlie McCorkell, he had taken on the task of collecting donations at the store and getting them into the hands of Rockaways residents. (In the past several days, Affinity Cycles of Williamsburg has organized similar efforts.)

After making our way over about 15 miles of city streets, the last stretches often blocked by sand and strewn with debris, we found an operation being run with brisk efficiency. As we unloaded our offerings, volunteers directed us where to put them: baby stuff here, flashlights over there, clothing upstairs. Once our own donations had been digested by the church's warehouse, we turned to unloading

other trucks that were arriving. A U-Haul filled with Red Cross cleaning kits. An SUV from a Harlem church stuffed with warm children's clothing. Bags of diapers

loaded out of the trunks of private cars.

We moved it all into the warehouse, and learned something from a more seasoned volunteer in the process: If you're passing items along a line of people, it's easier on



your back if you don't stand shoulder to shoulder, but instead face each other in alternating directions down the line. With enough people, you can empty out a truck in double-time that way.

New Yorkers are learning things from this storm, and from the relief efforts that are ongoing even as another weather front sweeps through this afternoon, forcing another round of evacuations. Practical things. They are learning where to go for help, and how to help each other. They are learning how to get around when the transportation system fails, and the importance of redundancy and resiliency in all kinds of infrastructure. They are learning what you really need to have on hand when supply chains are disrupted, and what you can do without. They are learning how to assess the accuracy of information, and how to spread it. They are learning that individual efforts, pooled together, can make a substantial material difference in a crisis.

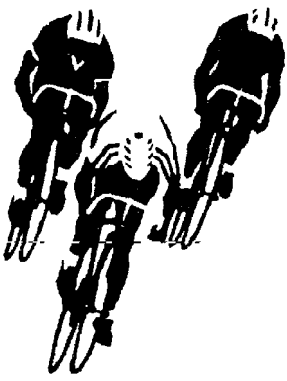
Bicycles are part of all this. In the early days after the storm, when the trains and buses stopped running, bikes were one of the few reliable ways of moving people, objects, and information around streets choked with debris. They don't require the gasoline that people are still lining up for hours to get. They don't need to be charged up – just add some basic food to a human being, and you can power the legs that turn the cranks.

Many of those of us who use bikes for transportation in better times knew their potential to help out in disaster already. Bikes have been part of my family's emergency plan since we first made one in the wake of 9/11. After we had a kid, we planned for his bike needs at every stage, from a seat on the back to a bike trailer to a tandem to his own solid ride that would go any distance. A friend suggested on Twitter that the Office of Emergency Management should encourage bike tuneups as part of basic disaster preparedness measures, like a go bag or stockpiles of food and water. Yes to that.

Sure, there are lots of things that bicycles can't do, or that motor vehicles can do better, if they're available. Some Bicycle Habitat customers drove heavier donations, like bottled water and canned food, out to the Rockaways to supplement the bicycle effort.

But as I pedaled along the streets of the peninsula, my panniers filled with hand warmers and tampons and energy bars, I was struck again by the power of the bicycle. It is a machine that is uniquely able to leverage and amplify human effort. And this is precisely what we have seen all over the city in the days since the storm hit: The humble work of individual people, harnessed to simple mechanisms, can gain strength exponentially. And move a city forward.





# Weekly Rides

## RIDE SPEED CLASSIFICATIONS

A-pace: 18-22 mph (fast and steady)

B-pace: 15-17 mph (moderate & steady)

C-pace: 11-14 mph (moderate with stops)

Casual pace: Up to 11 mph (group will wait for all cyclists)

+ or - indicates the ride will be either at the top end or bottom end of pace range

Call ahead when planning to attend a ride. This allows you to inquire about directions the weather or to discover last minute changes in the schedule. **Ride leaders are not obligated to lead a ride in inclement weather or when the temperature is below 40 degrees. PBA recommends helmet use for all cyclists.** They may be required by individual ride leaders.

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## ROAD

- Sats., 7:30 a.m. BikeBeat Kiln Creek:** B+ pace 32/42 mile ride. Contact Chris Scales at 833-0096.  
**Women's Shop Ride BikeBeat Kiln Creek:** 22 mile No Drop Ride. Road bikes only. Contact Avaneil at 833-0096.
- Sats., 8:45 a.m. Village Bicycles:** 25 mile A & B pace ride from the Warwick store, 9913 Warwick Blvd, (Hilton area), Newport News. Call Walter at 595-1333.
- Sats., 8:00 a.m. Back Alley Bikes Shop:** B+ pace ride leaving from the shop in Grafton. Call Jeff Gainer for info at 872-4653 or 880-6267 (C) or email [back\\_alley@verizon.net](mailto:back_alley@verizon.net).
- Suns., 8:45 a.m. Village Bicycles:** A pace ride from the Warwick store, 9913 Warwick Blvd, (Hilton area), Newport News.
- Suns., 9:00 a.m. Waller Mill Park** (Airport Road, Williamsburg) A-/A pace, 52 miles, Contact Bob Ornelaz at 874-4125 or Mike Cobb at 846-8797.
- Weds., 9:00 a.m. Dismal Swamp Trail on Rt 17 in Deep Creek.** Fran & Fred Adams lead a ride for seniors, retired people and anyone who has Wed. off. About 30 miles with a stop at G.R.I.T.S. for snacks. Contact Fran at 467-2775.
- Mon/Wed/Fri 6:15 a.m. "Squirrel Scalpers" Ride.** 22 miles Pace to suit slowest rider (B pace minimum). Meet at Panera Bread at Christopher Newport University (12368 Warwick Blvd). Call Rod Martin for more information at HM 930-8345 or WK 833-0096.

## PBA Ride on the W & OD

Come join Sandy Butler and other PBA members on Saturday and Sunday, April 13 and 14, 2013 for our annual overnight adventure on the Washington & Old Dominion Trail (W&OD) through the rural countryside of Purcellville to the suburbs of Falls Church. The W&OD is the most popular paved trail of the "Rails to Trail" System in the United States. It is a 45 miles long and mostly flat or gradual terrain with a few hills. (We are doing 40 miles one way each day) This will be the twelfth year that this popular trip has been offered.

We would leave Newport News early Saturday morning and travel to Purcellville, about a 3-½ hour drive or less. Then bike to Leesburg where we would have lunch at a wonderful train station bakery. After lunch the group would then travel through Herndon, Reston, Vienna and Falls Church. We will arrive at our motel (Econo Lodge) around 4:00 p.m. after a 40 mile C pace ride. Once we are rested and cleaned up we will take the Metro into Washington D.C. for dinner at the California Pizza Kitchen or you can walk from our motel to a nearby restaurant. Sunday would find us retracing our route back to Purcellville with breakfast at La Madeleine, a French restaurant in Herndon and other food stops along the way.

If you want to reserve a space or need more information give Sandy Butler a call at 872-9271. The trip is limited as far as number of people. Please note that weather this time of year can be anything from thunderstorms, downpours, winds and even snow. Should we not ride there's always good shopping. Despite the sometimes bad weather we have always managed to ride at least one day. Howard and Leslie Beizer and Anthony and Hazel Woodard have agreed to shuttle our luggage to Falls Church and back to Purcellville. Motel reservations must be made by you and you need to contact Sandy for the phone number to the motel.



# Weekend Rides

## for February

Visit the PBA website for possible additional rides and changes.

PBA Web Site [www.pbabicycling.org](http://www.pbabicycling.org)

- Sat., 2/2 9:00 a.m. B pace:** Meet Sam Earl at the Smithfield YMCA for a 30+ mile ride. No calls, ride cancels. Call Sam at 757-595-5984.
- Sat., 2/2 10:00 a.m. C pace:** Meet Bob and Linda Carter at the Poquoson Farm Fresh for the "Groundhog Day Ride". 25 / 30 miles. No calls, ride cancels. Call Bob and Linda at 757-868-6198.
- Sun., 2/3 10:00 a.m. C pace:** Meet Ron Hafer at the Newport News Park stables parking lot for a 25+ mile ride. Rest stop at Dare Crossroad store. No ride if temps below 35 degrees. No calls, ride cancels. Call Ron at 757-503-5713.
- Sat., 2/9 9:00 a.m. B pace:** Meet John Atwood at the Coventry Elementary School for a 35+ mile ride. No calls, ride cancels. Call John at 757-596-9701.
- Sun., 2/10 10:00 a.m. B pace:** Meet Rob Meyer at the Coliseum Crossing Starbucks in Hampton for a 35+ mile ride. Call before Sunday. Bring money. No Calls, ride cancels. Call Robb at 757-826-4433.
- Sun., 2/10 1:00 p.m. C pace:** Meet Sharon Bochman at Waller Mill Park for a 30 / 42 mile ride. \$2.00 parking fee. No Calls, ride cancels. Call Sharon at 757-868-4120.
- Sun., 2/10 3:00 p.m. C pace:** Meet Sandy Butler at the Yorktown Court House for a 15 – 20 mile casual ride. Bring \$\$\$ . No calls, ride cancels. Call Sandy at 757-872-9271.
- Sat., 2/16 9:00 a.m. B pace: **\*\*CANCELLED\*\***** Meet Paul Krieschen at the Kiln Creek Parking lot for 35 mile ride... Call Paul at 757-234-0290. **\*\*CANCELLED\*\***
- Sun., 2/17 10:00 a.m. B Pace:** Meet Jack Liike at Coventry Elementary School for a 35+ mile ride. No calls, ride cancels. Call Jack at 757-788-1196.
- Sun., 2/17 10:00 a.m. C pace:** Meet Ron Hafer at the Newport News Park stables parking lot for a 25+ mile ride. Rest stop at the Dare Crossroad store. No ride if temps below 35 degrees. No calls, ride cancels. Call Ron at 757-503-5713.
- Sat., 2/23 9:00 a.m. B pace:** Meet Nan and Jim Mack at Tabb High School for a 25 mile ride. Bring \$\$ for a rest stop at Ben and Jerry's in Yorktown. Call Nan and Jim at 757-865-6987.
- Sun., 2/24 10:00 a.m. B pace:** Meet Jack Liike at Coventry Elementary School for a 35+ mile ride. No calls, ride cancels. Call Jack at 757-788-1196.
- Sun., 2/24 1:00 p.m. C pace:** Meet Sharon Bochman at Waller Mill Park for a 30 / 42 mile ride. \$2.00 parking fee. No Calls, No ride. Call Sharon at 757-868-4120.
- Sun., 2/24 9:30 a.m. C pace:** Meet Mark VanRaam at the Farm Fresh parking lot in Poquoson for a 20-25 mile ride. Bring your own snack for rest stop. No calls, ride cancels. Call Mark at 757-827-7221.

### Bike Journal

Join other PBA members and Log Your Miles on BikeJournal.Com. Want a little push to reach your total mileage goal in 2013. Join your fellow PBA members on BikeJournal.com. Point your browser to <http://www.bikejournal.com/home.asp> and sign up, basic membership is free, and create a profile (from the "Riders" menu). Next configure your journal (from the "Journal" menu) and join. Be sure to join the "Peninsula Bicycling Association (PBA)" club (from the "Club" menu). You can be a member of multiple clubs. After you ride, visit Bike Journal and add the ride (don't worry, you can enter multiple rides and rides from previous days, or edit past rides). If you make your journal public then others may see how your mileage is going, and of course you can see theirs. At next year's awards there will be a Bike Loggers drawing, similar to the "door prize" drawings. For each 1000 miles you get one chance in drawing (e.g. 7420 miles earns 7 chances, 2210 miles earn 2 chances etc). The more you ride the better chance you have of winning, and like our "door prizes" you must be present to win.

# Achieving optimal power through your bike fit

By Michael Lovegren M.S., FMS, CPBT, Biomechanist

Bike Fitting in cycling seems to be one of the most debated subjects surrounding our sport for the past several years. While some seem to believe the bike fit should just be about the bike. The truth is it's not! It's important to look at the bike and the body as one. The fact that every person is different, from body shape and flexibility to power output and race discipline, makes this equation even more involved. While everyone's fit will vary, there are a few principals that will benefit athletes of all levels.

## #1 Cleat Position

Cleat placement is one of the most important parts of bike fitting. If the cleat is not properly aligned then the rest of the bike fit will be incorrect. Every watt of power you produce is transferred to the bike through your feet and on to the pedals. If the position of the cleat is not directly underneath the ball of the foot you can end up developing some serious foot problems. We will cover more about the cleat and power in the next series.

## #2 Saddle position

When looking at saddle position there are two factors that need to be addressed the fore and aft position, which refers to the location of the nose of the saddle behind a vertical line drawn to the center of the crank axle. The other factor is the angle of the saddle nose either pointing up, down, or neutral. In respect to the angle of the saddle it should be in neutral position (0 degrees). If your saddle is in a negative angle or tilted downwards your hips will slide forward which can lead to knee pain. Just the opposite having a positive tilt or tilted upwards has shown to cause the cyclist to be inclined and tilt his/her pelvis backwards which results in lumbar pain and can lead to numbness in the groin area.

## #3 Crank Arm Length

If you are looking for the biggest bang in your performance then having the right crank arm length will help. A crank arm that is too long will cause a decrease in your cadence and increase tension on your knee joint. Having the right crank arm length will increase your power, pedaling rate, and have an effect on your efficiency. See the chart below for

your optimal crank arm length:

Crank Length	Height	Inseam
160 mm	60 inches	
165 mm	60-65 inches	<29 inches
170 mm	65-70 inches	29-32 inches
172.5 mm	70-72 inches	32-34 inches
175 mm	72-74 inches	>34 inches
180 mm	74+ inches	

## #4 Saddle Height

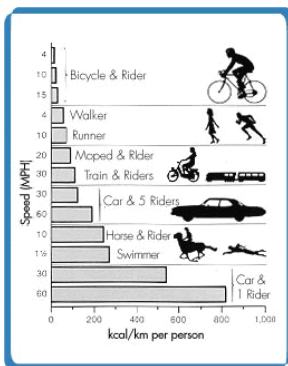
Saddle height is best determined by the knee angle. The optimal knee angles are 25 to 35 degrees. A saddle too low will over compress the knee and a saddle too high will hyper extend the knee. Look for more information to come in this series about which knee angle is right for you.

## #5 Functional Movement Screen

If you followed all the steps and had your bike fitted correctly you could still have an improper bike fit. In the beginning we discussed that the bike fit is not just about the bike, but the body as well. The Functional Movement Screen is a series of tests that views the body from a joint-by-joint process to find poor movement patterns in your body. There are certain joints that need mobility while others need stability. Putting this and the techniques above together will help you achieve optimal power.

**Movement Tip:** While on your bicycle bring your belly button up and push your butt down. Keeping a neutral back will help open your airways and will not constrict your diaphragm. This technique allows you to utilize your core and improve air flow. Our body is unique and it will focus more on breathing than posture. However, poor posture constricts airflow.

*Michael Lovegren, M.S. is a performance coach with over 15 years of experience in exercise science. He is the owner of Kinetic Loop Training System LLC and coaches endurance athletes around the world.*



A comparison of the energy cost of various forms of transportation shows that the bicycle is most energy-efficient.

## Science of cycling: Human power (From www.exploratorium.edu)

The bicycle is a tremendously efficient means of transportation. In fact cycling is more efficient than any other method of travel--including walking! The one billion bicycles in the world are a testament to its effectiveness. The engine for this efficient mode of transport is the human body. Because bodies are fueled by food, diet plays an important role in how the body performs. Different muscle groups and types provide the power. Genetic inheritance, intensive training, and a competitive drive help top athletes push the boundaries of endurance and speed on the bicycle.

### How Far Do You Want To Go?

It takes less energy to bicycle one mile than it takes to walk a mile. In fact, a bicycle can be up to 5 times more efficient than walking. If we compare the amount of calories burned in bicycling to the number of calories an automobile burns, the difference is astounding. One hundred calories can

power a cyclist for three miles, but it would only power a car 280 feet (85 meters)!

### Bike Culture

In the United States many people still consider cycling only a recreation or professional sport. But millions of Americans have found that cycling is a great way to get work or get around town. Some cyclists are banding together and forming organizations and events advocating issues important to cyclists.

The bicycle has had a great impact on popular culture as well. In fashion, the bicycle was largely responsible for changing women's clothing in the late 1800s. Restrictive corsets and long dresses made way for bloomers and later trousers.

In the art world, the bicycle has made its way into painting and sculpture. Most notably in Marcel Duchamp's Roue de Bicyclette or Bicycle Wheel which is considered the first 'readymade' sculpture.

See "Human power" on page 8



Duchamp's Roue de Bicyclette, the 1951 version. The original, created in 1913, has been lost.

**Fuel for Thought**

Unlike automobiles, which require fossil fuel, cyclists are fueled by food, a renewable energy resource. The type of food a cyclist eats can affect performance. All of us require water, protein, carbohydrates, fats, vitamins, and minerals to stay healthy. For top athletes, maintaining a proper balance of these nutrients is extremely important. U.S. Women's cross-country champion Ruthie Matthes explained, "Off the bike I tend to eat a lot of vegetables and fruits, high carbohydrates--but not to the extreme of where I'm eating just rice and potatoes. I do mix protein in." During races many cyclists will use high-carbohydrate drinks, bars, or even gels for instant energy.

**Fluids**

The human body is made up of mostly water, so even losing as little as 2 percent of the body's fluid through sweat can adversely affect cycling performance. Athletes riding in hot conditions for extended periods need to be careful. Severe dehydration can cause heat exhaustion or heat stroke and in even in some extreme cases, death. Cyclists are instructed to drink a few cups of water before riding and then to drink often during exercise.

**How Do Your Muscles Work?**

A cyclist's legs provide the power for cycling. Muscle attached to the thighbone (femur) and the shinbone (tibia) do the majority of the work. Your thighbone works like a lever and if it's longer than your shinbone it will provide extra leverage on each stroke of the pedals. The length of your thighbone is determined by genetics, so if you have short thighbones you can blame your parents. The length of the thighbone is not the whole story, though--it takes muscles to move those bones.



The quadriceps and hamstrings do most of the work when you ride a bicycle.

Thousands of thin spaghetti-like fibers make up muscle tissue. These fibers receive messages from the brain, causing the fibers to contract. The main muscles at work in cycling are the quadriceps and hamstrings in the upper leg, and the gastrocnemius and soleus in the calf. These muscles contract in a sequence that creates the pedaling action.

**Anaerobic vs Aerobic**

It's one thing to have the brain send a message to the muscles, but what fuels the muscles during the thousands of contractions that occur during extended cycling? You've probably heard the terms aerobic and anaerobic. These terms describe two ways in which your muscles get energy.

In aerobic exercise, muscles draw on oxygen as well as the glucose and fatty acids carried in by the blood to produce adenosine triphosphate or ATP.

ATP is the energy source that enables muscles to contract. The ability to keep exercising aerobically depends on the delivery of oxygen and fuel molecules (glucose and fatty acids) to your muscles. And that depends on circulation and respiration, provided by your heart and your lungs.

When exercising anaerobically, muscles are drawing on stores of glycogen (which is formed from glucose) and converting them to ATP. During this type of high-intensity exercise the muscles are producing energy without oxygen--the cardiovascular system is unable to keep up the demand. There is a price to pay for exercising anaerobically, as a waste product called lactic acid builds up. This is what causes the burning sensation in muscles and causes them to fatigue more rapidly.

In competition, riders are very aware of their own physical limits and try to use their more limited anaerobic capacity strategically. Ruthie Matthes explained, "One of the toughest things about mountain bike racing is that from the gun we do a sprint. The first person to get to the single track or to make a jump on the field has an advantage so right from the start we go into the anaerobic zone. And that can be very tough. We need to train our bodies to adjust for that."

**Slow & Fast Twitch Fibers**

Every muscle is made up of two types of fibers. Fast-twitch fibers move 2 to 3 times faster than slow-twitch fibers, but they tire more easily. Fast-twitch fibers, logically, are used for sprinting and quick ascents. Inversely, slow-twitch fibers are used for long rides of moderate intensity.

Most people have half slow-twitch and half fast-twitch fibers in their muscles. However, genetics again plays a role. Some long-distance runners have as much as 80 percent slow twitch fibers, while sprinters tend to have more fast-twitch fibers.

**The Drive to Cycle**

While genetics can certainly play a role in deciding whether a cyclist will be a champion or not, the drive to win and compete also has to be present. Long hours of training and intensive competition require the cyclist to be extremely determined. In addition, competitive cycling requires adherence to details and to finely tuned techniques.

People who commute by bicycle or ride recreationally may not have the extreme determination that a pro cyclist has, but nevertheless cycling provides challenges and rewards to everyone who rides. Most cyclists agree that cycling not only improves their physical health but their mental outlook. A sense of accomplishment and a feeling of independence are feelings every cyclist shares. Perhaps that's why cycling for many is more than a sport or even a mode of transportation--it's a passion.

**"THE Annual Valentine's Dinner"**

Join the PBA for a Valentine's Day Dinner at 6:30 p.m. on February 16, 2013 at Al Fresco an excellent local Italian restaurant located at 11710 Jefferson Ave, Newport News. The food here is excellent, so please come out and join us for a most enjoyable evening whether it's for yourself or you and a close friend. Call Anthony or Hazel Woodard at 766-9180 or email papawoodard@verizon.net. RSVP no later than Wednesday, February 13 to allow time to make the necessary adjustments to the reservations. P.S. You can justify eating heartily by saying you're carbo loading for a big ride on Sunday! Hope to see ya there. Ride safe, ride far, and ride fast.

Anthony

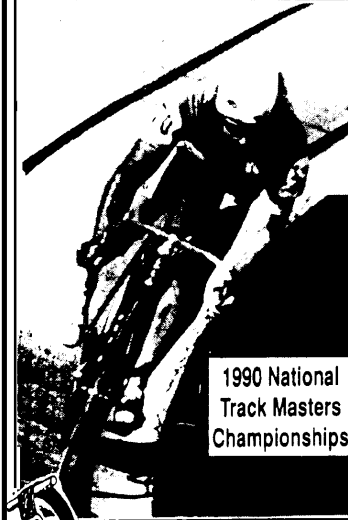


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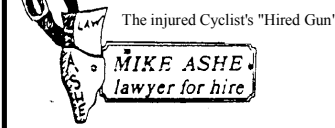
**2006 Fuji Newest 1.0**, 54 cm, TIG welded Fuji Altair 2 frame with carbon front fork, Truvativ compact crankset (36/50 teeth), Alex ALX R-1.0 rims. Upgraded with 10 speed, indexed Shimano Ultegra shifters, Ultegra rear derailleur, and Shimano 105 cassette (12-27). Fuji saddle is original and still new. (I swapped it out for my own saddle.) Wheel set is like new. Bicycle was ridden one season before I upgraded to a new frame. This is a nice entry level road bike made even nicer with these component upgrades. Asking \$800 OBRO. Call Jan Carlson at 757-898-2870 (4/12)

**2010 Rans** crankforward bike. Blue in color. Rear disc brake. Two Schwalbe tires 26x1.35 on bike with two larger size tires. Water bottle cage. Kick stand. Rear rack. Lights front & rear. Bell. Sheep skin seat cover. Owners manual. \$1,500 new asking \$800. Call Ron 757-503-5713. (3/12)

## SOME THINGS CAN'T BE LEARNED FROM LAW BOOKS



It might be his United States Cycling Federation Masters Level, age-graded District Championship gold, silver, and bronze medals; it might be his three top ten placings in the national championships; or it might be his 18 years legal experience representing cyclists; Any way you look at it, on or off the bike, his track record speaks for itself. A dedicated cyclist successfully representing cyclists. Find out what serious cyclists already know... "When they don't see you, see him!"



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**PBA members place your free cycling related for sale ad. Send ad to Scott Farrell email: StealthTDI@spamarrest.com.**



## PBA Membership Application

Name \_\_\_\_\_ Email: \_\_\_\_\_ Home Phone \_\_\_\_\_  
 Address \_\_\_\_\_ Work Phone \_\_\_\_\_  
 City/State/Zip \_\_\_\_\_ Age (if under 21) \_\_\_\_\_  
 Type of membership    Individual    Family                       New Member     Renewal  
 Names of family members who ride \_\_\_\_\_  
 Club interests (safety, tours, newsletter etc) \_\_\_\_\_

**RELEASE:** In signing this application, I (we) hereby make it known to whomever it may concern, that during Peninsula Bicycling Association activities---with full realization that there are known and unknown hazards to these activities---I (we) do hereby: assume all risk for injury, loss, or damage foreseeable or not, which I (we) and/or any children under the age of 18 in my (our) care may sustain as an accident to such activities. I (we) warrant to make no claim at law or equity against the Peninsula Bicycling Association or any participant arising out of any injury, loss, or damage from whatever cause during a Bicycling activity PROVIDED HOWEVER, that this release shall not be construed to limit my (our) right to proceed any class of persons specifically excluded herein, who negligently cause injury, loss, or damage to the persons named on this application.

**All persons over the age of 17 or parents or guardians of minors must sign below.**

Signature(s) **Dues: Individual \$12, Family \$15 per year**  
 Mail to: Peninsula Bicycling Association, P.O. Box 12115, Newport News VA 23612-2115

[www.bikebeatonline.com](http://www.bikebeatonline.com)



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