



# DELAWARE VALLEY BICYCLE CLUB

P.O. BOX 497 MEDIA, PA. 19063

## JUNE 1990

## FREE!

### Energy for the Cyclist

By Amy Beaver, R.D.

In order to perform an aerobic activity such as cycling, energy is required. The possible sources of energy are protein, fat and carbohydrates (CHO). CHO are an energy friend to the cyclist. During exercise, our bodies use CHO for immediate energy. By having a high CHO intake, you can postpone the time it takes to exhaust your energy reserves. (Ed: I hit this "wall" once at about 65 miles!)

If you are training for an endurance event, increase your CHO intake two to three days before the event. Also, slightly decrease your activity level. Some forms of complex CHO are breads, cereals, pastas, vegetables, rice and fruits. An athlete should consume 60-70% of their calories from CHO. An athlete who consumes 2,000 calories per day would need to get 1,200-1,400 of their calories from CHO. This means 300 to 350 grams of CHO. In order to determine grams of CHO, read the food labels. The labels list grams of CHO per serving. Furthermore, items such as the serving of fruit, contain 10 grams of CHO and one-half cup of vegetables contain 5 grams of CHO. One cup of milk supplies 12 grams of CHO. The lower the fat content of the milk, the more CHO it supplies.

High CHO foods are also good sources of Vitamin A, Vitamin C, Thiamin, Riboflavin, Fiber and Folic acid. Whole fruits should be consumed in preference to fruit juices since the piece of fruit provides fiber.

### PRE-EVENT DAY MEALS

#### BREAKFAST

	GRAMS CHO
Bagel	30
Jelly-1 teaspoon	5
Banana-1 whole	20
Oatmeal-1 cup	30
Orange juice-1 cup	20
Skim milk-1 cup	<u>12</u>
	117

#### SNACK

Pretzels-1 oz. bag	15
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#### LUNCH

Salad-2 cups vegetables	15
Hot pasta-1 cup	15
Meatless red sauce-3/4 cup	8
French bread-2 slices	30
Apple-1 whole	10
Skim milk-1 cup	<u>12</u>
	105

#### DINNER

	GRAMS CHO
Baked chicken-3 oz.	
Baked potato-1 medium	30
Broccoli-1 cup	10
Orange-1 whole	10
Dinner roll-1 small	15
Margarine-1 tablespoon	
Skim milk-1 cup	<u>12</u>
	77

#### SNACK

Ice Milk-1/2 cup	15
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#### Grand total (grams CHO)

329

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Karl Voigt, III . . . . . 970-1672  
Bob Wright . . . . . 623-8373

## Ride Coordinators

**A/B Rides:** Mike Keating  
104 E. State St.  
Media, PA 19063  
891-9098 FAX: 891-1897

**C/D Rides:** Doug Kennedy  
913 Mt. Holyoke Pl.  
Swarthmore, PA 19081  
543-4664

*Please contact the Ride Coordinators  
before the 7th of each month.*

## DVBC Newsletter Staff

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## Club Addresses

### Editor:

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Media, PA 19063

### Membership & Club Box:

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### Newsletter/Special Events

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## Items for Sale & Ride Reports:

DVBC  
P.O. Box 497  
Media, PA 19063

The views expressed in this publication are not necessarily the views of the Delaware Valley Bicycle Club, nor do we endorse products or services advertised.

Letters to the Editor must be signed to be considered for publication.

## Club Merchandise

Club T-Shirts . . . . . \$6.00  
Club Car Decals . . . . . .50  
Club Bike Decal . . . . . .25  
Club Water Bottle . . . . . 2.00  
Club Patches . . . . . 1.25

## DVBC Meeting Place

Unitarian Universalist Church of Delaware County, 145 W. Rose Tree Road (near Rt. 252 & Rose Tree Park). First Monday of each month. Doors open at 7:00 P.M. Public is welcome.

## Ride Guidelines

1. Arrive 10 to 15 minutes early and be **READY TO LEAVE ON TIME!** Rides will start no more than 5 to 7 minutes late!
2. Make sure your bike is in proper working order **BEFORE** you arrive.
3. Carry a spare tube, patch kit, pump and water bottle.
4. Practice safety and obey *all* traffic laws.
5. Wearing a helmet is usually not mandatory, but is encouraged. (A helmet is mandatory for all time trials and some Class A rides.)
6. Do not "bike off" more than you can do. Go on rides within your ability, interest and experience.
7. **RIDE CLASSIFICATIONS:**
  - CLASS D:** For new, inexperienced riders or families: speed 5 – 7 mph, frequent stops, as few hills as possible. Group will wait for all riders. Mileage usually less than 10 miles, but longer distances permissible.
  - CLASS C –:** For average riders: 7 – 8 mph, rest stops as needed. Group will wait for stragglers. Distance recommended: 10 – 30 miles.
  - CLASS C +:** Also average riders: 9 – 10 mph, rest stops every 45 – 60 minutes. No obligation to wait for stragglers if cue sheets or maps are provided by the ride leader.
  - CLASS B –:** For more experienced riders: 11 – 12 mph, stops every 15 – 20 miles. No obligation to wait for stragglers if cue sheets or maps are provided.
  - CLASS B +:** For strong riders: 13 – 15 mph, stops every 20 – 30 miles. No obligation to wait for stragglers if cue sheets or maps are provided.
  - CLASS A:** For very strong riders: 16 – 20 mph, stops every 30 – 50 miles. No obligation to wait for stragglers if cue sheets or maps are provided.
- TIME TRIAL:** Timed event. Again, you must obey all traffic laws. A hard helmet is mandatory. You must yield the right of way at all times. Club time trials should not be regarded as races, but as training rides.
8. Each rider assumes his/her own risk on all time trials *and* touring rides.
9. Those who ride ahead of the group are on their own ride.
10. Always notify the ride leader before leaving the group.
11. Ride leaders should adhere to the advertised speed of the ride.
12. Ride leaders are not expected to be bike mechanics.

**NOTE:** In the case of questionable weather or road conditions, the Ride Leader may decide to cancel the event. Call the Ride Leader if in doubt. All Club rides are rated according to degree of difficulty. If you're in doubt about your cycling ability, *try out a ride one class below the one you're not sure about and then work your way up.* The general public is invited to *all* events organized and conducted by Delaware Valley Bicycle Club. A program is presented by the Club for bicyclists of *all* ages, *all* abilities, and *all* interests. Except for the Freedom Tour, Brandywine Tour and Club picnic, all club events are *free* to the general public. The general public is *welcome!*



# Ride Calendar

June 6 • Evening Miles: 15-20 • Class C <i>Wednesday Evening "C"</i>	Every Wednesday evening in June, Walter Linton will lead a class "C" ride for 15 to 20 miles. Probable starting point is the lower parking lot of the Clover Store on Baltimore Pike in Springfield. For more information call Walter at 328-2871.
June 10 • 9:10 A.M. Miles: 15-30 • Class B— <i>Park to Park</i>	Leave from Rose Tree Park (Rt. 252 just above Rt. 1) near the flagpole. NO stops are planned. There will be some hills! Led by Rich Patterson, Jim Nyborg, Bill Taylor and Spurge Miller. For more information call Rich at 622-2954.
June 10 • 10:00 A.M. Miles: 35-40 • Class C+ <i>Springton Manor Farm</i>	Meet at the E.O. Bull Building at Rosedale & High Streets in West Chester. Enjoy a scenic ride out to the Springton Manor Farm. Bring lunch to have along the way. For more information call Fran DeMillion at 431-2675.
<i>Anyone wanting to ride in West Chester after work should call Fran at the above number.</i>	
June 10 • 8:00 A.M. Miles: 5-20 • Class C— <i>Rockin Chair Ride</i>	With Mott - not as slow as tricycles, but pretty darn slow. We'll use local roads recommended by the Bicycle Commuter's Map, browsing along the way. Up to 99% humidity — we GO! Meet at Swarthmore train station. 3 hours or less (not all riding). Wear your \$!&* helmet. Doris Dickinson: 543-8431.
June 13 • Evening Miles: 15-20 • Class C <i>Wednesday Evening "C"</i>	Every Wednesday evening in June, Walter Linton will lead a class "C" ride for 15 to 20 miles. Probable starting point is the lower parking lot of the Clover Store on Baltimore Pike in Springfield. For more information call Walter at 328-2871.
June 16 • 10:15 A.M. Miles: 5 • Class: All <i>Goshen Time Trial</i>	<i>Fathers' Day Eve TT.</i> Meet (10:15 SHARP) at Providence Rd. just north of Goshen Rd. near the Radnor Hunt Club. Test yourself against the clock. Roads are NOT closed to traffic. Helmet required. Timekeeper: Ed Silcox. For more information call Rollin' Rich Patterson at 622-2954.
June 17 • 9:00 A.M. Miles: 50 • Class B— <i>Ride to CoreStates</i>	Meet at the Drexline Shopping Center (State Rd. & Township Line, Drexel Hill) to ride to Valley Forge, then down the bike path to Manayunk to watch the some of the CoreStates race at "The Wall." Bring or buy lunch. For more info call Rich Bernhard at 284-2019.
June 17 • 10:15 A.M. Miles: 5 • Class: All <i>Goshen Time Trial</i>	<i>Fathers' Day TT.</i> Meet (10:15 SHARP) at Providence Rd. just north of Goshen Rd. near the Radnor Hunt Club. Test yourself against the clock. Roads are NOT closed to traffic. Helmet required. Timekeeper: Ed Silcox. For more information call Rollin' Rich Patterson at 622-2954.
June 17 • 9:00 A.M.? Miles: 156 • Class Pro <i>Corestates U.S. Pro</i>	THE biggest one-day bicycle race! Many of the top riders in the world will participate. Ten laps from the Art Museum to Manayunk ("The Wall") and back. Double check the starting time in the sports section the week of the race. Race runs a little over 6 hours.
June 20 • Evening Miles: 15-20 • Class C <i>Wednesday Evening "C"</i>	Every Wednesday evening in June, Walter Linton will lead a class "C" ride for 15 to 20 miles. Probable starting point is the lower parking lot of the Clover Store on Baltimore Pike in Springfield. For more information call Walter at 328-2871.
June 23 • Noon Miles: 12-15 • Class C— <i>Beginner's Dirt Ride</i>	Leave Swarthmore train station to ride through the Swarthmore College Woods to Smedley Park for a lunch stop. (Bring lunch!) This is a good ride for newer dirt bike riders. For more information (and to get all the latest dirt) call Doug Kennedy at 543-4664.
June 24 • 9:10 A.M. Miles: 15-30 • Class B— <i>Park to Park</i>	Leave from Rose Tree Park (Rt. 252 just above Rt. 1) near the flagpole. NO stops are planned. There will be some hills! Led by Rich Patterson, Jim Nyborg, Bill Taylor and Spurge Miller. For more information call Rich at 622-2954.
June 24 • 10:00 A.M. Miles: 35-50 • Class C+ <i>Lancaster County . . .</i>	. . . <i>Father's Day Ride.</i> (Dad had to wait because of the CoreStates Race.) Meet at PSFS in front of Granite Run Mall at 10:00 to car-pool to the starting point. There will be hills (more down than up) and be sure to bring lunch. Call Sarah Shirk (985-9335) or Annie Fetter (543-5107).
June 24 • 11:00 A.M. Miles: 30 • Class C+/B— <i>Singles Only . . .</i>	. . . <i>Goshen-Malvern.</i> Leave from Daley's Restaurant parking lot (W. Chester Pk. & Providence Rd. in Edgemont). Join other single bikers for a tour of the beautiful horse farms of the area. Possible snack stop after ride. Bob Wright (623-8373) or Karen (626-2335).
June 27 • Evening Miles: 15-20 • Class C <i>Wednesday Evening "C"</i>	Every Wednesday evening in June, Walter Linton will lead a class "C" ride for 15 to 20 miles. Probable starting point is the lower parking lot of the Clover Store on Baltimore Pike in Springfield. For more information call Walter at 328-2871.
July 1 • 10:15 A.M. Miles: 5 • Class: All <i>Goshen Time Trial</i>	Meet (10:15 SHARP) at Providence Rd. just north of Goshen Rd. near the Radnor Hunt Club. Test yourself against the clock. Roads are NOT closed to traffic. Helmet required. Timekeeper: Ed Silcox. For more information call Rollin' Rich Patterson at 622-2954.
July 1 • 2:15 P.M. Miles 20-30 • Class C <i>Richmond's Ice Cream</i>	Meet at Kingsway Regional High School (Rts. 322 & 551 - 2nd light past Com. Barry Bridge) in New Jersey. Enjoy an easy-paced ride to the ice cream shop. For more information call the Terrible Tandem/Trailer Team — the Pattersons at (215) 622-2954.
July 4 • 9:00 A.M. Miles: 35-40 • Class C+ <i>Red Bank</i>	Leave from the Bridgeport (NJ) School (cross Com. Barry Bridge to Rt. 130 N., make first right onto Barker Ave. and next right on Rt. 44). Bring lunch for a flat ride to Red (White and Blue?) Bank in National Park, NJ. Lunch stop overlooks the Delaware River and Phila. Doug Kennedy: 543-4664.



# PENNY FARTHING

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703 BURMONT RD., DREXEL HILL  
CLOSED WEDNESDAY



# June

## 8-11 Friday-Monday

New London, Conn.; GEAR '90; L.A.W. annual rally; rides of various lengths, workshops, exhibits, fun; Coalition of Conn. Bicyclists and L.A.W.; (800) 562-BIKE, (800) 462-BIKE (in Conn.).

## 9 Saturday

Middleboro, Mass.; Tour De La Femme; 9 a.m. at Middleboro Crossing (Rt. 28/105); 12-38 mi.; flat; \$1; incl. map, route markings; Mass. Bay Road Club, Craig Lindsey, 26 Columbia Circle, Plymouth, MA 02360; (508) 747-3221.

Pennsville, N.J.; Get Ready Metric Century; 8 a.m. at Fort Mott; 33, 66 mi.; flat; \$7 till June 2, then \$9; incl. map, patch, sag, lunch; South Jersey Wheelmen, Scott Medaugh, 122 Delaware St., Woodbury, NJ 08096; (609) 848-5038.

## 10 Sunday

Hagerstown, Md.; Scenic Western Maryland Century; 7 a.m. at Williamsport H.S.; 50, 63, 100 mi.; mod. hilly; \$5 till June 2, then \$7; incl. map, snacks; helmet required; Cumberland Valley Cycle Club, Paul Oberg, P.O. Box 711, Hagerstown, MD 21740; (301) 797-6531.

Philadelphia, Pa.; Freedom Valley Bicycle Ride; 9 a.m. at Eakins Oval, Benjamin Franklin Pkwy.; 6, 16, 37, 60 mi.; flat to mod. hilly; \$10; incl. map, sag, route markings, snacks; B.C. of Philadelphia, Tim Carey, P.O. Box 30235, Philadelphia, PA 19103; (215) 440-9983.

## 16 Saturday

Chesapeake City, Md.; Maryland-Delaware Flatlands Tour; 8 to 10 a.m. at Bohemia Manor H.S.; 28, 50, 100 mi.; flat; \$3; SASE to Baltimore B.C., Mary Gordon, 1519 Shadyside Rd., Baltimore, MD 21218; (301) 235-9156.

## 17 Sunday

Willow Grove, Pa.; River to River Century; 7 a.m. (100 mi.), 8 a.m. / 25-50 mi. at AMH Health Center; 25, 50, 100 mi.; flat to mod. hilly; \$6 till June 16, then \$8; incl. patch, sag, route markings, food, cue sheet; helmet recommended; Suburban Cyclists Unlimited, Emerson Custis, 300 Hatboro Pike, Apt. Ax11, Hatboro, PA 19040; (215) 277-8689.



## League of American Wheelmen Membership Application

I want to join the national organization of bicyclists. Please start my subscription to BICYCLE USA magazine. Also send my membership materials, including bike and window decals, membership card, and a L.A.W. patch.

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
TELEPHONE (\_\_\_\_) \_\_\_\_\_  
CLUB \_\_\_\_\_  
SPONSOR \_\_\_\_\_

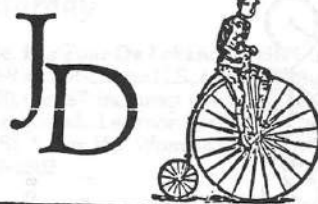
L.A.W. Membership Categories  
(Add \$5 for postage to foreign countries. Pay by check drawn in U.S. money order)

- ☐ Individual: \$25
- ☐ Family: \$30
- ☐ Individual Life: \$350
- ☐ Family Life: \$525
- ☐ Sustaining: \$50
- ☐ Public Library: \$15

Please add me to the Hospitality Homes list.

Tax-deductible contribution to the Bicyclists' Educational and Legal Foundation:  
\$ \_\_\_\_\_ \$500 \_\_\_\_\_ \$100 \_\_\_\_\_  
\$ \_\_\_\_\_ \$50 \_\_\_\_\_ \$25 \_\_\_\_\_

League of American Wheelmen  
6707 Whitestone Rd., Suite 209  
Baltimore, MD 21207



## THE JERSEY DOUBLE 200-Mile Bicycle Tour

Western Jersey Wheelmen

June 23, 1990

Sag, cue sheets, marked route.

For more information contact:

Mike Bohrer  
267 Dreehook Rd.  
Lebanon, NJ 08833

(201) 236-9619 (eve.)

## 22-24 Friday-Sunday

Watkins Glen, N.Y.; Great Finger Lakes Bicycle Tour-X; a.m. at Watkins Glen State Park; 47, 63 mi.; mod. hilly; \$35; incl. map, sag, lodging, water bottle, souvenir; helmet required; Southern Tier B.C., A. Mueller, 4009 Drexel Dr., Binghamton, NY 13903-3442; (607) 722-6005.

## 23 Saturday

Oldwick, N.J.; Jersey Double; 4:45 a.m. at Exit 24/1-78; 200 mi.; rolling to mod. hilly; \$15; incl. map, sag, route markings, snacks, T-shirt, certificate; Western Jersey Wheelmen, Mike Bohrer, 267 Dreehook Rd., Lebanon, NJ 08833; (201) 236-9619.

## 23-24 Saturday-Sunday

Allentown and Reading, Pa.; PA Dutch Cycling Extravaganza MS 150 Bike Tour; 7 a.m. at Lehigh Valley velodrome & Exeter Jr. H.S.; 150 mi.; flat to mod. hilly; \$20; incl. map, sag, route markings, snacks, lodging, baggage shuttle, T-shirt, souvenir; helmet required; Lehigh Wheelmen, Marylynn Burtain, National MS Society, Ste. 3E, 1444 Hamilton St., Allentown, PA 18102; (215) 821-8360.

## 24 Sunday

Elmore, Ohio; Portage River Tour; 7:30 a.m. at Woodmore H.S.; 10, 25, 31, 62, 100 mi.; flat; \$6 till June 19, then \$8; incl. map, patch, sag, route markings, snacks; Toledo Area Council/AYH, Ray Squire, 1333 Thatcher Dr., Toledo, OH 43606; (419) 243-7680.

Betterton, Md.; 5th Annual Bay to Bay Ride; 7 a.m. at public beach; 72, 86, 107 mi.; flat; \$6 till June 11, then \$8; incl. map, patch, sag, route markings, snacks, swim; helmet required; Eastern Shore Velo Club, P.O. Box 393, Centerville, MD 21617; (301) 778-4881.

June 24 13th Annual Raritan Valley Round-Up; 25, 50, 62, & 100 mi. SASE to Central Jersey Bicycle Club, P.O. Box 2202, Edison, NJ 08818





## FREEDOM VALLEY

### BIKE-A-THON • now • BIKE RIDE

SUNDAY JUNE 10, 1990 rain or shine!

6, 16, 35, or 62 miles, with food and rest stops.  
It's a ride, not a race.

Enjoy historic Center City and scenic Fairmount Park and Chester County. Return to Philadelphia on the bike path along the Schuylkill river, now almost complete from Valley Forge.

Note the new name - since most of our riders do not bring pledges, we are counting on their donations (and a slightly higher registration fee), to fund the rest of the path.

NEW THIS YEAR -- pre-registrants with a \$25 donation will receive a FREEDOM VALLEY BIKE RIDE t-shirt. Contributors of \$100 or more will lead the ride.

And... the long route to Valley Forge will be easier! To volunteer, or for a registration form, call 925-6005.

## BICYCLE BLUE ROUTE

So, it's been ten years; why isn't it done YET??? Because...each tiny section, be it along a stretch of Conrail or SEPTA railway, or through a backyard, or a business property, or a park, or driveway, or street, needs separate negotiations to purchase the land (if we can't get it donated) or to obtain right-of-way. Multiply these efforts by the need to get acceptance and cooperation from each borough along the route. Local politics and the concern of neighbors about the type of people the path will attract, and its effect on traffic and safety are big issues.

THEN, when a section is finally acquired and approved, it has to go through the scheduling, bidding and contracting process required by Montgomery County. This can take from a few months to a few years.

Most recently the stretch through Norristown has been largely completed. Remaining to do is the segment from Norristown to Valley Forge, and several connecting links throughout, especially through Conshohocken. If you live in Conshohocken, it would help if you would make your support of the bikeway known to your councilman. Please contact Jim Castellan through the AVH Office.

Jim, former AVH Board member, who started running the FVB ten years ago from his home, has been dauntless in keeping this effort going. This is the first year he will not be directing the Ride (Bob Rossman and Alice Wells are co-directing), so Jim will have more time for politicking. Another person very active has been John Wood of the Montgomery County Planning Commission.

Over the past nine years, you have raised \$67,000 to go toward the community funds that are matched by the Federal government.

Thank you and keep up the good work.

# Officials: Montco is closer to having 17-mile bikeway

By Jerry W. Byrd  
Inquirer Staff Writer

More than a decade after buying the right-of-way, Montgomery County officials say they are ready to move ahead with plans for a 17-mile jogging, hiking and riding trail in the central part of the county.

The commissioners yesterday scheduled a June 12 public meeting to discuss conversion of the old Reading railroad right-of-way to the Perkiomen Rail Trail.

"The mood has changed, and there's a sense that it's something we should do," Commissioners Chairman Paul B. Bartle said.

The commissioners said it was still too early to estimate the cost of conversion. The trail, 60 feet wide in some places, is partly overgrown with trees and bushes, officials said. The tracks were removed in 1977.

When completed, the trail would touch 10 communities between Pennsburg in Upper Merion Township and Collegeville in Lower Providence and be among the longest trails of this type in Pennsylvania, county planner John Wood said.

Eventually, it may be linked to the Philadelphia-Valley Forge Bikeway, providing a continuous trail between Center City and Pennsburg, Wood said.

"We've looked at a lot of different scenarios," Wood said. "We think a

unified trail is the best."

Other than several planning presentations — and complaints from residents about noisy beer parties — not much has happened with the right-of-way since the county bought it in 1978.

The county paid the Reading railroad \$120,000 for it. Conversion to a biking trail, however, proved more difficult than expected, said Rita C. Banning, the Democratic minority commissioner.

Besides facing opposition from some residents, the county also ran into a legal tangle over its rights to the property. Reading owned about 15 percent of the land outright. The remainder of the right-of-way had been acquired through easements.

County solicitor Frederic M. Wentz said that some of the agreements dated to the 1800s and that heirs must be located for each parcel.

Banning said the Perkiomen Rail Trail "just seemed like a wonderful idea at the time. The complications weren't immediately apparent."

Bartle said issues such as police and litter patrols, bridge repair, and grading also must be worked out.

"It's going to take some time," he said.

The hearing will be held at 7 p.m. June 12 in the auditorium of Perkiomen Valley High School, Route 29, Perkiomen Township.

June 15th --- 17th -- Jim Thorpe MTB Weekend in Jim Thorpe, Pa. Call Hugh Hackett (215) 948-8315.

June 17th -- CoreStates USPRO Championship, Philadelphia.

## Consumer Reports / Editor's digest

As the bicycling season approaches, now's the time to shop for a bike helmet. Once cursed with a nerdy image, bike helmets are becoming more popular as cycling's colorful Lycra style makes its way from the racing velodrome to the streets. That's good news, since wearing a bike helmet can reduce the risk of a head injury by 85 percent.

Today's bike helmets have come a long way since the leather "hairnets" that passed for head protection just a few years ago. When those leather helmets were shown to be ineffective, manufacturers came up with a design that combines a hard plastic or fiberglass shell with a liner of expanded polystyrene foam, similar to the plastic foam that protects VCRs and TVs in their shipping boxes. The lightweight material crushes on impact, thus absorbing the shock that would otherwise be transferred to the wearer's head.

Another variation of the helmet has done away with the shell, which reduces the weight by up to half. Instead, the foam is wrapped in a Lycra cover. On these no-shells, the cover is there for appearance, but it may also protect the head after the initial blow by holding broken helmet pieces together. Some no-shell helmets have plastic or nylon reinforcement molded into the foam to add strength.

A third type aims for the durability of the hard-shell helmet and the light weight of the helmets without shells. These so-

called thin-shell helmets have a thin, light, semi-rigid plastic shell.

Consumer Reports' testers found that as a group the no-shell models performed better overall than other types. Top-rated were the no-shell Bell Quest (\$51) for adults; the no-shell Bell Streetrider (\$34) for children ages 6 to 12; and the thin-shell Bell L'il Bell Shell II (\$37) for kids under 6.

But there are brands other than Bell that would make a good choice, too. The Performance models, available primarily by mail, cost only \$30 to \$40, plus shipping. (If you buy by mail, make sure you can return the helmet if it doesn't fit.) The high-rated Paramount Team Issue is available only through Schwinn dealers.

These helmets were judged "not acceptable" because they failed the testers' roll-off resistance test: the Avenir (hard-shell), the Avenir Advantage (no-shell), the Monarch Aero-jet (hard-shell) and the Spalding Youth 82518 (thin-shell).

When buying a helmet, make sure it's labeled to meet the standards set by the American National Standards Institute (ANSI). If it has the green sticker saying the helmet is certified by the Snell Memorial Foundation, that's even better. The Snell standards are more demanding.

One more point: A helmet is a one-shot item. Once it's been damaged in an accident, or in any other way, you should replace it — even if the damage isn't obvious.

# July

## 1 Sunday

**Port Penn, Del.; Delaware Doublecross;** 10 a.m. at Augustine Beach; 28 mi.; flat; \$4.50 till June 26, then \$5; incl. map, patch, sag, route markings; White Clay B.C., John DeGood, P.O. Box 294, Yorklyn, DE 19736; (302) 239-6034.

**Belleville, Ill.; Firecracker 100;** time n/a; 100 mi.; flat to rolling; \$6 AYH mbr., \$8 non-mbr. till June 22, then \$8 and \$10; incl. map, sag, route markings, snacks; T-shirt avail.; helmet required; Ozark Area Council/AYH, Sheri House, 7187 Manchester, St. Louis, MO 63143; (314) 644-4660.

## 4-8 Wednesday-Sunday

**Slippery Rock, Pa.; L.A.W. National Rally;** sponsored by L.A.W., Outspokin' Wheelmen, and the Western Pennsylvania Wheelmen; rides of varying lengths; pre- and post-tour packages; one-day and weekend registration possible; workshops, exhibits; see articles in 1990 *Almanac* and March/April issue; 1990 L.A.W. National Rally, P.O. Box 838, Youngstown, OH 44501; last minute hotline, (412) 452-0403.

## 7 Saturday

**Hell, Mich.; One Heuluva Ride;** 6:30 a.m.; 35, 50, 74, 100 mi.; flat to rolling; \$12 till June 23, then \$16; incl. map, patch, sag, route markings, snacks; Ann Arbor Bicycle Touring Society, Ed Steinman, P.O. Box 2854, Ann Arbor, MI 48106.

**Bay City, Mich.; Liberty Tour '90;** 6 a.m. at Bay County Comm. Cntr.; 16, 38, 62, 100 mi.; flat; \$8 till June 27, then \$10; incl. map, patch, sag, snacks, salad bar, swimming, showers; Tri-City Cyclists, Steve Skillman, P.O. Box 2156, Bay City, MI 48707; (517) 892-2100.

### Blue & Gray

Gettysburg College, Gettysburg • Info: Bike Fed, (717) 761-3388 • Fee: "Inexpensive"

### Super French Century

Central Bucks County • Info: (215) 847-5709 • Sponsor/Organizer: Susan French • More: tough 110 miles

## 8 Sunday

**St. Louis, Mo.; Leonard Leighton Memorial Bicycle Poker Ride;** time n/a at Jamestown Mall; 15, 25 mi.; flat to rolling; \$4 AYH mbr., \$6 non-mbr.; incl. map, sag, route markings; helmet required; Ozark Area Council/AYH, Sheri House, 7187 Manchester, St. Louis, MO 63143; (314) 644-4660.

**Tonawanda, N.Y.; Vern Rischard Memorial M.C.;** 8 a.m. at Lincoln Park; 62 mi.; flat; free; incl. map, snacks, after ride picnic; helmet required; SASE to Big Wheels B.C., Dick Spengler, 22 Amber St., Buffalo, NY 14220.

**Kent, Ohio; Circle Akron Ride;** 6:30 at Dix stadium; 25, 62, 100 mi.; rolling to mod. hilly; \$10 till July 2, then \$15; incl. map, patch, sag, route markings, snacks; SASE to Akron B.C., Tom Baughman, 2135 Gates Ave., Streetsboro, OH 44241; (216) 626-2664.

**Glasgow, Del.; WCBC/FSVS Double Century;** 5 a.m. at People's Plaza Shopping Cntr.; 200 mi. (16-hr. limit); flat; \$11 till June 24, then \$13; incl. map, sag, route markings, snacks, T-shirt; White Clay B.C., Nancy Estilow, 1124 12th Ave. Murray Manor II, Wilmington, DE 19808; (302) 994-9161.

**Plymouth, Mass.; Mystery Tour;** 9 a.m. at W. Elementary School; 30 mi.; flat to rolling; \$1; incl. map, route markings; tailgate party (BYO); helmet required; Mass. Bay Road Club, Craig Lindsey, 26 Columbia Circle, Plymouth, MA 02360; (508) 747-3221.

## 14 Saturday

**Sewell, N.J.; Road Runner;** 7:30/100 mi., 8:30/50 mi., 9:30/25 mi. at Gloucester County College; 25, 50, 100 mi.; flat; \$8 till July 7, then \$10; incl. map, patch, sag, route markings, lunch; South Jersey Wheelmen, Dewey Parker, Box 6, Wenonah, NJ 08090; (609) 468-1776.

## 21 Saturday

**Annville, Pa.; Tour De Lebanon Valley** (new route); 8-9 a.m. at Cleona H.S.; 62 mi.; rolling; \$5 till July 20, then \$7; incl. map, patch, sag, snacks; helmet required; Lebanon Valley B.C., Bob Morris, Rt. 1, Box 153, Womelsdorf, PA 19567; (215) 589-2802.

**Wakefield, Mich.; North Country 100 Bicycle Tour;** 7 a.m. at Indianhead Mt.; 25, 62, 100 mi.; rolling to mod. hilly; \$15 till July 1, then \$20; incl. map, sag, route markings, snacks, T-shirt; helmet required; N. Country Wheelmen, Connie Loden, 500 Indianhead Rd., Wakefield, MI 49968; (906) 229-5181.

## 21-22 Saturday-Sunday

**Buffalo, N.Y.; Metzler/Marquarte Century Weekend;** 7 a.m.; 25, 50, 62, 100 mi.; flat; free; incl. map, sag, route markings; Niagara Frontier B.C., Jim Vozga, P.O. Box 211, Buffalo, NY 14226; (716) 626-0597.

## 22 Sunday

**White House, Ohio; Metro Park Bicycle Tour;** 8 a.m. at Middle School; 62 mi.; flat; \$5; incl. map, patch, sag, snacks; Toledo Area Council/AYH, Richard Hayes, 3440 Larkin Dr., Toledo, OH 43623; (419) 474-0267.

**Bourne, Mass.; Woods Hole Tour;** 8:30 a.m. at Bourne H.S.; 22, 60 mi.; flat to rolling; \$1; incl. map, route markings; helmet required; Mass. Bay Road Club, Craig Lindsey, 26 Columbia Circle, Plymouth, MA 02360; (508) 747-3221.

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### FIFTH ANNUAL SUPER-FRENCH IRONMAN CENTURY

**When:** Saturday, July 14      **Rain date:** July 15  
**Where:** Ride begins and ends at the boat ramp at Peace Valley Park, Creek Road, Doylestown Township  
**Time:** Registration from 7:30 - 8:15 a.m.; ride begins promptly at 8:30 a.m.  
**Cost:** \$9.00

Lunch stop will close at 1:30.  
Ride must be completed by 6:30.

This ride is billed as the "most grueling ride on the East Coast" and features 110 miles of the toughest hills in Bucks County (and only one traffic light).

Every rider completing the "Ironman" will receive a certificate and medal.

**SERVICES:** Lunch and two food stops plus leftovers at the end of the ride. Maps. Roads will be clearly marked with an Eiffel Tower. Sag wagon is provided.

**FURTHER INFORMATION:** Susan and Larry French, P.O. Box 1, Ottsville, PA 18942. Phone: (215) 847-5709.

If you need a map and/or more information, please enclose a S.A.S.E.



## 28 Saturday

**Mattoon, Ill.; Ride Around Mattoon For A Bagel (RAMFAB);** 6:45 a.m. at Amtrak; 25 mi.; flat; \$5; incl. map, patch, sag, route markings; Central Illinois Cyclists, D. MacGibbon, 1021 Wabash, Mattoon, IL 61938; (217) 258-6167.

## 29 Sunday

**Sergeantsville, N.J.; Deer and Dog Dodging Double;** 7-8 a.m. at Delaware Township, school route 604; 53-212 mi.; flat to hilly; \$6 till July 28, then \$8; incl. patch, sag, route markings, snacks, cue sheet; helmet required; Suburban Cyclists Unlimited, Emerson Custis, 300 Hatboro Pike, Apt. A-11, Hatboro, PA 19040; (215) 957-0967.

### 29 LAZY DAY CENTURY

Sponsored by Tri-County Pedalers, P.O. Box 341, Royersford, PA 19468. Contact Greg Kulp at (215) 367-5610.



**1990 4TH ANNUAL BIKE-A-THON**  
**SPONSORED BY SUNSHINE FOUNDATION/BUCKS COUNTY CHAPTER**  
**& VIETNAM VETERANS OF AMERICA/BUCKS COUNTY CHAPTER 210**

On July 21, 1990, the 4th Annual Bike-A-Thon will take place to raise funds to support both the Sunshine Foundation's efforts in making the dreams of less fortunate children come true, and the many worthwhile programs of Vietnam Veterans of America on a local level.

Registration is \$15.00 per entrant. All registration fees are due no later than July 14, 1990; please make checks payable to:  
**"SF/VVA BIKE-A-THON"** and enclosed with the tear off registration form below.

**P R I Z E S**

All participants receive a Bike-A-Thon Tee Shirt  
 Collect the amount listed below and also receive:  
 \$150 Bicycle Gloves  
 \$300 Sony Walkman  
 \$600 Sharp Desktop Calculator  
 \$1200 \$100 Gift Certificate to the Bucks County Restaurant of your choice

**TOP FUND RAISER OVER \$1200 RECEIVES A BICYCLE FROM BIKE TECH IN DOYLESTOWN**

**A W A R D S**

Trophies will be given in the following categories:  
 Top Fund Raiser      Fund Raisers over \$500  
 Youngest to Complete Ride      Oldest to Complete Ride  
 School or Business that Raises Greatest Amount

For further information contact Susan Karpuk/Sunshine Foundation at 355-9273 or Lu Bates/Vietnam Veterans of America at 348-3519.

**1990 4th ANNUAL BIKE-A-THON REGISTRATION FORM**

Name \_\_\_\_\_ Age \_\_\_\_\_ Phone \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 School or Company \_\_\_\_\_ Tee-Shirt Size S M L XL  
**WAIVER OF RESPONSIBILITY:** In participating in this Bike-A-Thon, I for myself, my executors, administrators and assigns do hereby release and discharge Sunshine Foundation and/or Vietnam Veterans of America and all sponsoring businesses and organizations and their agents from all claims of damage, demands, actions and causes of action whatsoever, in any manner, arising or growing out of my participation in this event. I also give full permission for use of my name and photograph in connection with this event.

Signature (Parent/Guardian if under 18)

MAIL WITH REGISTRATION FEE OF \$15 TO:  
 4th ANNUAL BIKE-A-THON  
 19 N. Kitty Knight Drive  
 Churchville, PA 18966

**ABOUT THE '90 BIKE-A-THON...**

**WHO...** Anyone 12 years of age or older in good health and with a bicycle in good repair is welcome to participate. Persons under the age of 18 require the signature of a parent or guardian.

**WHAT...** A 30-mile bike ride throughout the panoramic Bucks County countryside.

**WHERE...** The Bike-A-Thon will begin at Maenneshore Field on Cold Spring Creamery Road in Doylestown off Route 313.

**WHEN...** Saturday, July 21, 1990, rain or shine. Registration begins at 8:00 a.m.; the bike ride begins at 9:00 a.m.

**WHY...** The proceeds of the '90 Bike-A-Thon will be equally divided between the Sunshine Foundation and the Bucks County Vietnam Veterans of America.

**HOW...** Register with the enclosed Registration Form and your check for \$15.00 made payable to "SF/VVA Bike-A-Thon" no later than July 14, 1990.

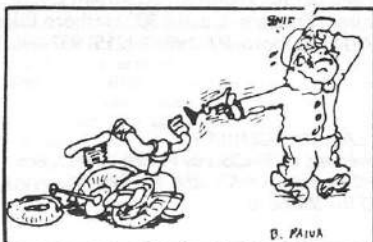
Complete the reverse side of this form, obtaining as many sponsors as possible; you may photocopy if additional space is needed for sponsors. Bring your Sponsor Form(s) to Maenneshore Field at 8:00 a.m. on the 21st of July.

**RIDE ON THE RIGHT SIDE OF THE ROAD - GIVE HAND SIGNALS AT ALL TURNS - OBEY ALL TRAFFIC SIGNS & SIGNALS - USE COMMON SENSE AT ALL TIMES!!!!**

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**Wear a Helmet**



# **American to bike the Great Wall**

By Kathy Wilhelm  
 Associated Press

**BEIJING** — Foreigners have ridden horses and danced classical ballet atop China's Great Wall, and yesterday a California man set out to become the first person to bicycle from one end to the other, about 3,700 miles.

"Like Mao said, 'You're not a man until you've reached the top of the Great Wall,'" Kevin Foster said.

Maybe if the late revolutionary leader Mao Tse-tung were still around, Foster, 30, a part-time actor from Ojai, Calif., might have gotten atop the wall sooner. He spent years trying to persuade Chinese authorities to approve his plan, and several more trying to find financial sponsors in the United States.

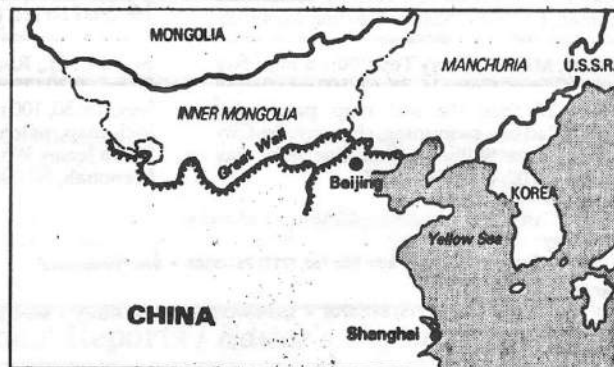
The last hitches were smoothed out late last year, and Foster boarded a train yesterday for the western mountain pass where the wall starts at Jiayuguan, 945 miles from Beijing. He will begin his trek later this week.

From there, the fragmented remains of the more than 2,000-year-old wall snake through desert and mountains before reaching the sea at Shanhaiguan, east of Beijing. Altogether, it covers about 3,700 miles.

Over the years, the wall has attracted foreigners with strange ideas. Besides riding horses and ballet dancing, they have performed concerts and held cocktail parties on the wall, originally a symbol of China's desire to keep out the world and now simply a symbol of China.

An Englishman ran the length of the wall in 1987. Others have ridden bicycles beside it. But so far, despite

Thursday, May 10, 1990 The Philadelphia Inquirer



The Philadelphia Inquirer/ROGER HASLER

hundreds of millions of Chinese relying on bicycles as their only means of transportation, no one has ridden a bicycle on top of the wall its entire length.

"Everyone wants to be first at something," said Foster, who said he got the idea as a child when he saw television coverage of former President Richard M. Nixon visiting the Great Wall in 1972.

Foster, who has a short, tousled ponytail, handlebar mustache and hyperkinetic personality, said his hosts at the Academy of Science's Institute of Geography call him "that crazy American."

Last November, he rode the New York subway system for 85 continuous hours to get into the Guinness Book of World Records.

Riding the wall on his mountain bike will be tough. The wall never had an even surface, and the centuries have not been kind. Many portions have steep stairs or slopes, others have been reduced to rubble. In some places, the wall has disappeared altogether due to the ravages of invading armies, weather and farmers who steal bricks for their homes.

At those parts, Foster and his Chinese entourage will travel in jeeps. In fact, Zhou Yu, one of two young

staffers the Institute of Geography assigned to bicycle with Foster, said he thought much of the trip might best be made in jeeps.

"I know there are some parts we'll look at and say, 'There's no way we can bicycle it.' If we can just walk it, I want to walk."

The army has refused to let the group even drive near one long stretch of the wall immediately west of Beijing because it is near military installations. Instead, they will detour around the area on train and resume bicycling at Beijing.

From there to the sea, Foster said he expected the smoothest biking because many sections had been renovated for tourists.

The whole journey will take about seven weeks, Foster estimated. It is costing him \$20,000, the fee charged by the institute for making all arrangements. Foster said he would pay it in part with \$15,000 he expected to receive from a U.S. helmet manufacturer for wearing its product.

"I can't wait to get it done so I can get on with the rest of my life," he said. "I'm already planning my next project. It will be even bigger."



## BICYCLE FRAME DESIGN CONSIDERATIONS

### Definitions

Stiffness as applied to bicycle frames can be simply defined as the ability to resist deflection. A frame that does not deflect or flex very much for the amount of force applied to it (relative to other frames) is stiff.

Strength can be simply defined as the ability to resist permanent deformation or breakage. A frame that undergoes a great deal of force in an accident and does not sustain breakage or permanent deformation is relatively strong. Note that stiffness and strength are not the same thing. A fishing pole is an example of something that is relatively strong (it requires a lot of force to permanently deform or break it) but not very stiff (it deflects easily).

Density is the weight per unit volume of a substance. For example, aluminum is much less dense than lead.

### Material Properties

Materials used in the construction of bicycle frames have varying strengths, stiffnesses (Moduli of Elasticity), and densities which are well documented and can be easily reviewed.

### Stiffness to Weight Ratios

All steel alloys have virtually identical densities - .284 lbs./cu. inch. The Moduli of all steel alloys are also virtually identical -  $30 \times 10^6$  psi. It is surprising to most cyclists that all steels have the same stiffness to weight ratio whether it is Reynolds 753, 531, Columbus or gas pipe. All the sales hype in the world can not change this fact. The strengths of steels vary tremendously, but strength does not affect the riding characteristics of a frame. Sufficient strength is required however, to prevent failure--i.e., permanent bending or breaking of the frame.

All aluminum alloys have virtually identical densities - .097 lbs./cu. inch and all have virtually identical Moduli -  $10 \times 10^6$  psi.

All titanium alloys have virtually identical densities - .162 lbs./cu. inch and all have virtually identical Moduli -  $15 \times 10^6$  psi.

Boron in fiber form has a density of .089 lbs./cu. inch and a Modulus of  $58 \times 10^6$  psi.

Using the formula  $(10^6 \text{ lbs./sq. inch}) / (\text{lbs./cu. inch})$  we get the following relative stiffness to weight ratios. The higher the number, the better the material is. Steel - 105.6. Aluminum - 103.1. Titanium - 92.6. Boron Fiber - 651.7. Steel, aluminum or titanium have similar stiffness to weight ratios as raw materials. Boron is about six times better. As we will see later, however, other aspects of the design of the structure will decrease the utility of boron and show aluminum to be a better material than steel.

### Strength to Weight Ratios

Within each materials group strengths vary a great deal. Factors such as brittleness, stress corrosion, unbrazability and unweldability make the highest strength alloys unuseable, unsafe or difficult for bicycle frame construction. The steel, aluminum and titanium alloys used to make bicycle frames are not the strongest alloys available but are often the strongest alloys practicable. Reynolds 531 has a yield strength of 120,000 psi. Reynolds 753 is 150,000 psi. However, yield strengths are about two thirds these figures at the lugs where brazing heat weakens the tube, thus steel tubes may be butted at these points. Thicker material makes up for the loss of strength.

Useable and safe aluminum alloys run 40,000 to 50,000 psi. Remember that aluminum is one third the density of steel so the 50,000 psi alloy is as strong as an equivalent weight of 150,000 psi steel. If the aluminum frame has welded and subsequent heat treated construction the weld zones retain their 50,000 psi strength making them about 50% stronger than the braze zones on a 150,000 psi steel frame - on a per weight basis.

Commercially pure titanium has a yield strength of 75,000 psi. Titanium is one half the density of steel so commercially pure titanium is as strong as an equivalent weight of 150,000 psi steel. The strength loss in the weld zones of pure titanium is small.

Boron in fiber form has a very high strength. However, fiber materials such as boron and graphite have good properties only along the axis of the fibers, not in the other two directions and in the special case of graphite, only in tension. More over, the epoxies used to bond the composite tubes into metal lugs on most composite frames are not of high strength, thus providing a weak link. We prefer to view the high Modulus fibers as a stiffening aid instead of taking chances on them as a load bearing structure. In the case of the Klein, boron is used to increase the stiffness of the aluminum frame about 15%, and in the precise places we want it. We do not depend on it for strength.

The conclusion is that adequate strength is achievable in steel, aluminum or titanium alloys. With the proper construction techniques aluminum alloy frames can have greater strength in the weld zones than the best steel frames at the respective braze zones.

*Continued after the  
inserted page.*



# August

## 2-5 Thursday-Sunday

**Amherst, Mass.; Tandem '90;** 10-50 mi. a day; flat to rolling; fee varies; strong family orientation; SASE to Franklin-Hampshire Freewheelers, Albert Shane, P.O. Box 559, North Amherst, MA 01059; (413) 548-9435.

## 3 Friday-6 Monday

**Wolfville, Nova Scotia; Atlantic Canada Bicycle Rally;** 7 p.m. at Acadia University; 18 to 60 mi. per day; flat to very hilly; \$55; incl. map, sag, route markings, souvenir, reception, program, barbeque, social night; A.C.B.R., Gary Conrad; P.O. Box 1555, Station M, Halifax, Nova Scotia, Canada, B3J 2Y3; (902) 423-5549.

## 4 Saturday

**Lawrence Township, N.J.; Princeton Bicycling Event;** 7 a.m. at Rider College; 15, 25, 50, 100 mi.; flat to mod. hilly; \$8; incl. T-shirt until July 25th, sag, snacks; helmet required; Princeton Free Wheelers, Inc., Edward Post, P.O. Box 1204, Princeton, NJ 08542-1204; (609) 890-8259.

## 5-11 Sunday-Saturday

**Havre de Grace, Md.; Cycle Across Maryland;** start at Havre de Grace H. S.; 350 mi.; rolling; \$110; incl. map, patch, sag, route markings, snacks, entertainment, camping, medical assistance; SASE to CAM-Tour '90-C, P.O. Box 11299, Baltimore, MD 21239; (301) 668-8609, 337-8786.

## 11 Saturday

**Dalhart, Tex.; Dalhart XIT Classic Bike Tour;** 8 a.m. at Cattlemens Livestock Auction; 12, 25, 50, 62, 100 mi.; flat to mod. hilly; \$12 till Aug. 1, then \$15; incl. map, sag, route markings, snacks, water bottle, T-shirt; SASE to Flatlanders-Amarillo, Rodney White; 108 W. 3rd. St., Dalhart, TX 79022; (806) 249-5567.

**Centerton, N.J.; Bridgeton Zoo Ride;** 8 a.m. at Schalick H.S.; 25, 50 mi.; flat; \$6; incl. map, patch, sag, route markings; South Jersey Wheelmen, Art Schalick, P.O. Box 2705, Vineland, NJ 08360; (609) 327-1336.

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11 DOG DAZE CENTURY  
Brandywine Bicycle Club, Nottingham, PA.  
Contact Mike Stull (215) 793-2341.

## 12 Sunday

**Leamington, Ont., Canada; Point Pelee Possum Posse;** 11 a.m. at Seaciff Park; flat; \$4; incl. map; Great Canadian Bicycle Tours, Jeff Scott, 3509 Academy Dr., Windsor, Ontario N9E 2H8, CANADA; (519) 969-4162.

**Monroe, Mich.; 9th Annual River Raisin Tour;** 7 a.m. at Monroe Co. Community College; 32, 62, 100 mi.; flat; \$9 till August 1 (no day of ride registration); incl. map, sag, route markings, snacks, lunch; \$1 rebate if helmet is worn; Monroe County Cycling, David Smith, P.O. Box 172, Monroe, MI 48161; (313) 243-2580.

**Willow Grove, Pa.; Lake Nockamixon Century;** 7 a.m. at A.M.H. Health Center, Blair Mill Rd.; 62, 100 mi.; flat to mod. hilly; \$6 till Aug. 11, then \$8; incl. patch, sag, snacks, cue sheet; helmet required; Suburban Cyclist Unlimited Inc., Emerson Custis; 300 Hatboro Pike, Apt. A 11, Hatboro, PA 19040; (215) 957-1067.

## 18-19 Saturday-Sunday

**Canton, Ohio; Roscoe Ramble;** 7:30 a.m. at DSU Campus Stark; 75 mi. both days; rolling to very hilly; map, patch, sag, route markings, snacks, lodging, canal boat ride; SASE to Akron Bicycle Club, Bill Kelleher, 192 Durward Dr., Akron, OH 44313; (216) 864-7785.

## 19 Saturday

**Hortonville, Wisc.; Wolf River Century;** 8 a.m. at Commercial Club Park; 50, 100 mi.; flat; \$10 till Aug. 5, then \$15; incl. map, sag, route markings, snacks, souvenir, free rustic camping; Fox Valley Wheelmen, Kevin Hillegas, 507 Nicolet Blvd., Neenah, WI 54956; (414) 729-5912.

**Lancaster, Pa.; Covered Bridge Metric Century;** 8-10 a.m. at Greenfield Corp. Center; 25, 50, 100 ki.; rolling; \$7 until Aug. 10, then \$9; incl. map, patch, route markings, sag, snacks, lunch; Lancaster B. C., Chas Roth, P.O. Box 535, Lancaster, PA 17603-0535; (717) 397-1149.

**Morrison, Ont., Canada; Lions and Tigers Tour;** 10 a.m. at Morrison commuter parking lot; 75 km; rolling; \$4; incl. map; Great Canadian Bicycle Tours, Clarence Dyksterhuis, 166 Wissler Rd. #202, Waterloo, Ontario N2K 2T9; (519) 747-4548.

## 25 Saturday

**Rochester, N.Y.; Mendon Century;** 7 a.m. at Mendon Ponds Park; 103 mi.; very hilly; incl. map; helmet required; Rochester B.C., Al Davis, P.O. Box 10100, Rochester, NY 14610; (716) 427-7884.

By ERMA BOMBECK



## Cycle stylists miss the seat of the problem

You would have to be out of it not to know that bicycles have staged a comeback for recreation enthusiasts. They are everywhere — on highways and bike paths, on mountains and in deserts.

I have a bike hanging in the garage that you couldn't get me on if Paul Newman rode me around on the handlebars. I have always felt there was something seriously wrong with the design.

That's why my heart skipped a beat a few weeks ago when I opened Time magazine and saw a prototype of the two-wheeler of the future. It would have three-spoke wheels to make it more durable, hydraulic brakes to make stopping easier, a molded one-piece frame, a computer that could measure speed, distance traveled and altitude, a push-button gearshift, and ... and? I shuffled through the pages and scanned the story again. What about the stupid seat?

They were actually going to build a 21st-century bicycle and keep the same old stupid seat!

Many do not love their bicycle seat. Ask them. It's like sitting on a flagpole for three days. Why should you have to be so miserable when you're trying to relax?

In my mind I have tried to imagine how the bicycle seat was designed and by whom. Was it the same man who brought us culottes? It has to be. Here is a man who has never viewed the human anatomy from the rear. If you put a woman in a skirt and divide it into two legs, she's going to look like a Disney parking lot from behind. The same thing will happen if you perch her derrière atop a little hard seat that fans out like a dead pigeon.

Wouldn't you have thought that someone in the office would have said, "Look, Hal, let's get Miss Simpson in here and let her sit on a piece of brown paper, and we can trace her outline with a Magic Marker just to get a handle on what we've got here?"

Hal probably would have said, "Who's going to notice what you look like when you ride a bicycle?"

"Hal! Are you saying you're not going to notice someone wearing a safety helmet and skintight neon Spandex shorts that glow in the dark?"

The Time article said that more changes will occur on the bicycle in this century and engineers will borrow materials from the aerospace industry. But a few things will likely remain the same: handlebars, pedals, a chain and two wheels.

Can you believe it? They didn't even mention the seat!

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I've enclosed my \$100 registration fee for the event.

☐ I'M INTERESTED! Send PEDAL FOR POWER information.

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Mail to: PEDAL FOR POWER Associates, P.O. Box 989-F

Atkinson, NH 03811

or: 95 Plainstow Road, Unit 8, Plainstow, NH 03865

Call: 1-800-762-BIKE

The Pennsylvania Triathlon

Blue Marsh Recreation Area, near Reading • Info: (215) 926-4303 • Sponsor/Organizer: Precision Road Racing, Inc. • Fee: \$35/\$45 • Deadline: August 31 • More: no race day registration

Sept. 15



September 16th -- Tour of Brandywine River  
Valley, Delaware Valley Bike Club. Call  
(215) 449-6154.

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TO  
VOLUNTEER

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OF BIKE TOURS  
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Over 500 first class bike tours for adults and families in the eastern U.S., Europe, China, and the Caribbean this winter. As the N.Y. Times says: "A venture that lives up to all those daydreams."

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October 6th -- Savage  
Century, White  
Clay  
Bike Club.  
Call  
(302) 738-9458.

October 14th --  
Sunshine  
Century,  
Montgomery &  
Bucks  
County.



## Discussion

Overall, steel, aluminum and titanium alloys are surprisingly similar. Apparently, aluminum and titanium have gained a reputation of being "whippy" because time and time again manufacturers attempt to build very light frames out of them. The better strength factors allow one to make a lighter bicycle frame but the higher strength does nothing for the stiffness. The same is true of Reynolds 753 (light gauge) which results in a light and "whippy" frame. It is not surprising that Reynolds also makes 753 in the same approximate gauge and weight as 531 Standard and that this tubing, not the light 753, is the one sometimes used by the Raleigh road team.

## Design Consideration - Tubing Diameter

The stiffness of equivalent weight tubes increases as the square of the diameter. The larger diameter tube has a thinner wall, is stiffer and weighs no more than the smaller tube. So why not make a bicycle frame out of the same material they use for beer cans? You could, and the frame would have an extremely high stiffness to weight ratio but it would crumple very easily (known as crippling failure). This is because there is a stability limit to how small the wall thickness to diameter ratio of a tube can become - about 1:50 before the tube becomes prone to crippling instead of bending failure, and like the beer can demonstrates, crippling is more easily performed than bending. As the wall becomes less than 1/50 the diameter of the tube the inherent strength of the tube rapidly decreases regardless of the material strength. For tubes that fall safely within the 1:50 ratio the bending strength of equivalent weight tubes increases linearly with the diameter. The larger diameter tube is stronger and weighs no more than the smaller tube.

Remember that aluminum is much less dense than steel. It has three times the volume for the same weight. An aluminum tube would have about a three times thicker wall than an equivalent weight steel tube. A 1.0" diameter steel tube with a wall thickness of .020" would have a wall thickness to diameter ratio of 1:50. With the same weight of aluminum you could make a 1.5" diameter tube with a wall thickness of .040" and a safe wall thickness to diameter ratio of 1:37.5. The aluminum tube would be 50% stronger and 125% stiffer than the steel tube even though it weighs exactly the same.

The following table of Down Tube Comparisons graphically illustrates that the large diameter aluminum tube offers considerable advantage over both 531 and 753 frame tubes in both strength and stiffness. The welded and heat treated frame, in addition, has no extra weight in the lugs. The result is a light, durable, high performance racing frame.

# DOWN TUBE COMPARISONS

	Steel Chrome Molybdenum		Steel Chrome Vanadium		Aluminum Magnesium Silicon
	Reynolds 531 Standard double butted		Reynolds 753 (Light Gauge) double butted		Klein 816 straight gauge
	unbutted section	butted section	unbutted section	butted section	
Wall thickness	.024"	.036"	.020"	.024"	.049"
Diameter	1.125"	1.125"	1.125"	1.125"	1.500"
Wall thickness/diameter ratio	1:47	1:31	1:56	1:47	1:31
Weight oz./inch	.377	.560	.315	.377	.347
Weight average for tube <sup>1</sup>	<u>.447</u>				
Relative stiffness	88	128	74	88	137
Stiffness average for tube <sup>2</sup>	<u>100</u>				
Material strength 1,000 psi <sup>3</sup>	120	80	150	100	50
Relative strength	101	100	106*	84	149
Strength for entire tube <sup>4</sup>	<u>100</u>				

- 1 Averages are based on Reynolds double butted tube configuration of an 11" unbutted section, 3" butted sections on each end of the tube and two 2" taper regions.
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Jerry Kagan	Giant	17:14	25	04	04
Annie Fetter	Olmo	13:50	23	08	16

TIMEKEEPER: Rollin' Rich Patterson (215) 622-2954  
Course: Goshen, Sugartown, and Providence Roads

NOTE: not all entrants are TEAM Casual members

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Mike Grzywacz	04
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What impact does menstruation have on a woman's athletic ability?

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Contact Dave Baseley  
(215)469-9855.

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Dan Wasserman / Boston Globe

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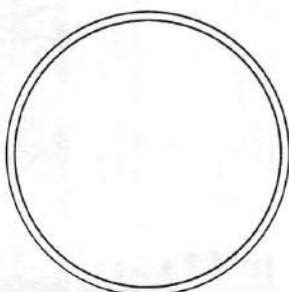
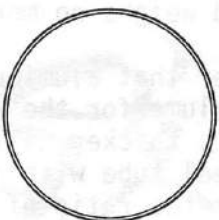
Klein 816  
straight gauge

unbutted  
section

butted  
section

unbutted  
section

butted  
section



Wall thickness

.024"

.036"

.020"

.024"

.049"

Diameter

1.125"

1.125"

1.125"

1.125"

1.500"

Wall thickness/diameter ratio

1:47

1:31

1:56

1:47

1:31

Weight oz./inch

.377

.560

.315

.377

.347

Weight average for tube<sup>1</sup>

.447

.339

.347

Relative stiffness

88

128

74

88

137

Stiffness average for tube<sup>2</sup>

100

79

137

Material strength 1,000 psi<sup>3</sup>

120

80

150

100

50

Relative strength

101

100

106\*

84

149

Strength for entire tube<sup>4</sup>

100

84

149

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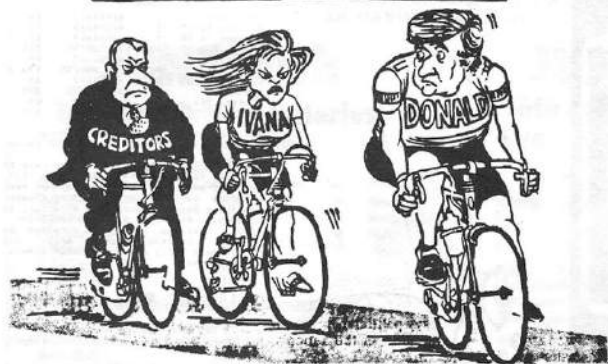
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# 1990 SEASON AT THE LEHIGH COUNTY VELODROME

		PRIZE MONEY																																												
MAY 25	OPENING NIGHT Pro, Cat. 1, 2 & Women	\$ 2,500	<b>*FASTEST MAN ON WHEELS SERIES*</b> *Best Overall Track Racer*																																											
JUNE 22- 24	INTERNATIONAL CYCLING WEEKEND U.S. & Foreign Teams, Invitational Only!	\$15,000																																												
JULY 10-14	JOHN E. DUPONT U.S. NATIONAL CHAMPIONSHIPS Includes Madison Nationals!		<b>DATES:</b> Series May 25, June 15, July 20, August 17 Finals September 7 <b>FIELD LIMIT:</b> Series Pro, Cat. 1 & 2 35 riders Finals Top 10 from each Series Event + 10 Promoter Wildcards * Women <u>Finals Only</u> 35 riders																																											
AUG. 31	THE BICYCLING MAGAZINE MADISON CUP The 12th Annual Event	\$ 5,000																																												
SEPT. 7	FASTEST MAN ON WHEELS (*See Details*)	\$ 7,500	<b>PRIZE MONEY:</b> <table><tr><td>Series</td><td>1. 425</td><td>6. 150</td></tr><tr><td>Men</td><td>2. 350</td><td>7. 125</td></tr><tr><td>Only</td><td>3. 300</td><td>8. 100</td></tr><tr><td></td><td>4. 250</td><td>9. 75</td></tr><tr><td></td><td>5. 200</td><td>10. 50</td></tr><tr><td>Finals</td><td>1. 1250</td><td>6. 400</td></tr><tr><td>Men</td><td>2. 1000</td><td>7. 300</td></tr><tr><td></td><td>3. 750</td><td>8. 250</td></tr><tr><td></td><td>4. 600</td><td>9. 200</td></tr><tr><td></td><td>5. 500</td><td>10. 150</td></tr><tr><td>Finals</td><td>1. 500</td><td>5. 200</td></tr><tr><td>Women</td><td>2. 400</td><td>6. 150</td></tr><tr><td></td><td>3. 300</td><td>7. 100</td></tr><tr><td></td><td>4. 250</td><td>8. 50</td></tr></table>		Series	1. 425	6. 150	Men	2. 350	7. 125	Only	3. 300	8. 100		4. 250	9. 75		5. 200	10. 50	Finals	1. 1250	6. 400	Men	2. 1000	7. 300		3. 750	8. 250		4. 600	9. 200		5. 500	10. 150	Finals	1. 500	5. 200	Women	2. 400	6. 150		3. 300	7. 100		4. 250	8. 50
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For more detailed information on all of the races held at the Lehigh County Velodrome call or write:	
<b>LEHIGH COUNTY VELODROME</b> <b>217 MAIN STREET</b> <b>ENNAUS, PA 18049</b> <b>(215) 865-8830</b>	
	

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## RACE NEW JERSEY ★ \$30,000 WEEKEND

### Coors 4th Annual Shore Cycling Classic

EVENTS	LAPS	PRIZES	PLACES	FEE	START
Sr. Woman	15	\$750+300 primes	15	\$20	9:30 am
Junior	20	\$750+300 primes	15	\$20	After
Veteran 35-44	30	\$800+250 primes	15	\$20	Proceeding
Cat 4	25	\$750+300 primes	15	\$20	Events
Cat 3	30	\$800+250 primes	15	\$20	
Pro I & II (In Memory of Harold Schneider)	60	\$5000+1000 primes	25	\$35 Pro- \$27 Sr. I & II	

Saturday: June 9, 1990 Rain or Shine

**REGISTRATION:** opens Friday night 7-9 pm, REOPENS Saturday 7:30am at the bandshell on the course, closes 1:00 pm SHARP!

**ENTRIES:** Received after May 28th pay post-entry & unattached rider fee of \$5.00.

**NO PHONE ENTRIES.**

**USCF RULES APPLY.** Free lap rule for Pro I & II only. Field Limit: Pro I & II 175, other 150.

**CRITERIUM COURSE:** Level .6 mile.

**HOUSING INFO.:** Special rates \$39 Colonial Motel (201) 899-2394

**DIRECTIONS:** Garden State Parkway to exit 98. Follow signs for Pt. Pleasant. Make left on Arnold Avenue (center of town).

**ENTRIES TO:** Coors Shore Cycling Classic, c/o Race Director, P.O. Box 1763, Pt. Pleasant Beach, NJ 08742.

**INFO:** Glenn Schneider (201) 899-9753

A 9 M CLOSED CIRCUIT CRITERIUM  
IN HISTORIC FREEHOLD, N.J.

CATEGORY	LAPS	PRIZES/PLACES	ENTRY
Citizen 8-10	1	medals/3	\$5
Citizen 11-13	1	medals/3	\$5
Citizen 14-16	1	medals/3	\$5
JR 16-18	20	\$1,500/30	\$22
Celebrity	1	medals/3	\$8
PRO/SR 1-2	40	\$12,000/30	\$50/\$2
Citizen 19-30	7	medals/3	\$5
Veter 35+	25	\$2,000/20	\$22
Citizen 31+	5	medals/3	\$5
Sr Cat 3	25	\$1,500/30	\$20

All fees include a \$1 USCF surcharge. Prizes will be awarded in all USCF races.

All USCF rules apply. Free lap rule in all USCF races. Fields limited to 135. To enter need \$45K for entry form or need standard form to New Jersey Cycling Classic c/o Robyn Snyder Bauer, Race Director, 44 Broadway, Freehold, NJ 07728 (201) 631-2832. Entries must be received by 6/2/90. Entries received after this date, post entry and unattached riders, \$5 additional.

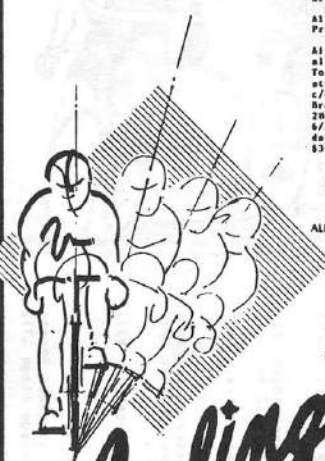
SUNDAY, JUNE 10, 1990

FIRST RACE BEGINS AT 12 P.M.  
ALL OTHER RACES FOLLOW PRECEDING EVENTS.

★★★★★★★

**\$18,000**

PLUS CASH AND MERCHANDISE PRIZES  
1ST PLACE PRO/SR 1-2 \$2,500



Fourth Annual

FORMERLY THE NESTLE FOODS CYCLING CLASSIC

PRODUCED BY *pmk-Sport*

USCF PERMIT PENDING

PrimeTime Promotions Presents 1st Annual Arts & Crafts Festival

\*CITIZENS RACES FOR ALL AGES: BMX (5-8) (9-12) 10 SD. (13 & up)



The Pennsylvania Bicycle Club presents the  
6th Annual

## MEMORIAL HALL CRITERIUM

Fairmount Park, Philadelphia, PA Saturday, June 16, 1990  
USCF Race Permit # Pending

Class	Distance	Time	Places	Cash Prizes	Entry Fee
Masters 45+	30K	9 AM	9*	\$500*	\$10
Women	30K	↑	10	\$300	\$10
Masters 35-44	30K	After	10	\$400	\$10
Masters 30-34	30K	Preceding	10	\$400	\$10
Senior Cat. 2 & 3	40K	Race	10	\$1000	\$20
		↓			

\* Six places for 45+ and three places for 55+

### Registration:

Memorial Hall in Fairmount Park. Opens at 8 A.M.  
Add \$5.00 after June 6th and on race day.  
Flat 1K course. Field limit 100 riders. Free lap rule will be in effect.

Mail standard entry form and fee prior to June 6th to:  
PBC c/o Laurama Pixton, 445 Dreshertown Rd., Ft. Washington, PA 19034.  
Make checks payable to "P.B.C."

### Directions:

From Rr. 76 and Rr. 1, take Rr. 1 South (City Line Ave.) 1 mile to Belmont Ave.  
Turn left and go 1.5 miles to North Concourse Drive.  
Turn left and Memorial Hall is ¼ mile ahead on left.

### For additional information, contact:

Nancy (215) 542-7181 or Dave (215) 941-7039 (before 10PM please!)

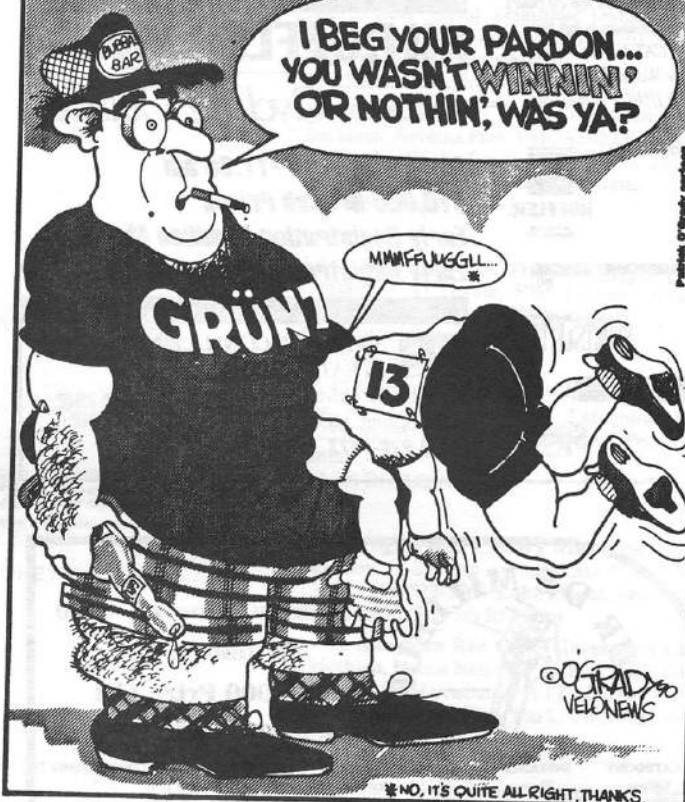
### Sponsored by:

Cycles BiKyle • Scott Oldsmobile/Saab

COME AND STAY OVERNIGHT FOR THE CORESTATES PRO CHAMPIONSHIP RACE!

## CRITERIUM ETIQUETTE

ALWAYS APOLOGIZE AFTER  
WALKING ACROSS THE COURSE  
DURING A FIELD SPRINT.



## INDEPENDENCE RACE WEEK IN CONNECTICUT

More than \$8775 in cash prizes plus primes!

### JUNE 30th 16th New Britain Criterium

Central Connecticut Cycling Club

JUNIOR SERIES				
Category	Distance	Places	Fee	Prizes
High School Boys 13-15	4mi	5	\$6	Models
High School Girls	4mi	5	\$6	Models
High School Boys 16-18	6mi	5	\$6	Models
Jr. Boys 15-16	10mi	5	\$10	\$100
Jr. Girls 16-17	10mi	3	\$10	\$75
Jr. Boys 17-18	15mi	10	\$10	\$300

MICRA MASTERS PRESTIGE POINT SERIES				
Category	Distance	Places	Fee	Prizes
Citizens 30+	6mi	5	\$10	Models
Master 30-39 IV	10mi	10	\$10	\$300
Master 30-39 I-III	15mi	15	\$10	\$400
Master 40-49	15mi	10	\$10	\$200
Master 50-59	15mi	10	\$10	\$200
Master 60+, 65+, 70+	10mi	10	\$10	\$100

SENIOR SERIES				
Category	Distance	Places	Fee	Prizes
Senior Men III	15mi	15	\$16	\$1001
Senior Women III-IV	10mi	10	\$10	\$200
Senior Men I, II, III	30mi	20	\$20	\$1250
Citizens 18-30	10mi	5	\$10	Models
Senior Men IV	10mi	10	\$10	\$300

REGISTER EARLY — MANY FIELDS CLOSED LAST YEAR.

\*Senior Women III-IV race will be run as a Points Race. \*\*Senior I, II, III race limited to the first 40 Cat. III riders. Prizes awarded to the top 10 in each race. Field limit 100 (Cat. I, II, III & Cat. III limit 120). All events start on the 1st of June 1990. All races will be charged a \$5.00 entry fee. Riders must be in order of registration. Fields greater than 20 will be held up by random. All USCF rules apply. Unattached USCF riders will be charged an entry surcharge of \$5. For confirmation of registration and information include a \$4.00. Mail Standard Entry form with check payable to Central Connecticut Cycling Club, 530 Lincoln St., New Britain, CT 06052. Entries not accompanied by a check will not be processed.

### JULY 4th 16th Andy Raymond Firecracker Criterium

Promoted by Middletown Bike Club, and  
Middletown Parks and Recreation Department

COURSE: 1 km, closed to traffic in downtown MIDDLETOWN, CONNECTICUT.

LOCATION: From Route 9 to Route 66 Exit to Main Street then left onto Main Street. From Route 66 to Main Street, then right onto Main Street.

REGISTRATION: Open to all USCF licensed riders. Entries close June 2, 1990. Unattached riders pay additional \$5.00. Promoting organization reserves the right to combine events with insufficient entries. Field Limit: 100 riders per race. Shower facilities available.

RULES: Prizes will be cash, trophies, and merchandise according to USCF rules. Use standard entry form. Mail entries to Middletown Parks and Recreation, 169 Butternut Street, Middletown, CT 06457. Checks payable to Andy Raymond.

Registration opens at 8:00 a.m. —

Races begin in order listed below.

CLASS	DISTANCE	PRIZES	PRIZE VALUE	ENTRY FEE*
Jr. M 10-12/W 10-12	3 KM	2/2	\$ 50.00	\$ 6.00
Jr. M 13-14/W 13-15	5 KM	3/2	50.00	6.00
Jr. M 15-16/W 16-17	5 KM	3/3	75.00	7.00
Sen. Men 45+	15 KM	8	150.00	8.00
High School (Non USCF)	5 KM	5	Models	6.00
Sen. Men IV 19-34	15 KM	10	200.00	9.00
Sen. Men 35+	20 KM	10	300.00	10.00
Sen. Women III & IV	15 KM	10	200.00	9.00
Jr. Men 17-18	15 KM	10	200.00	9.00
Sen. Men III 19-34	25 KM	15	600.00	10.00
Sen. Men I & II	50 KM	15	1,100.00	15.00

RACE-DAY ADD \$4.00.

\*FEES INCLUDE C. B. R. A. SURCHARGES AND INSURANCE.

### JULY 7th 1990 Riverfest Cycling Classic

Bushnell Park,  
Downtown Hartford

Sponsored by



in cooperation with the  
Capital Velo Club & the Exposition Wheelman

Category 1, 2, 3	Dist. 25 mi.	Prizes: \$1200	Entry Fee: \$20*
Category 3	Dist. 10 mi.	Prizes: \$450	Entry Fee: \$10
Masters 30-39	Dist. 10 mi.	Prizes: \$450	Entry Fee: \$10

\*Standard Cat. 3 entries limited to 35. Field limit 100. Riders listed in order of reg. All USCF rules apply. Unattached USCF riders will be charged entry surcharge of \$5. Register by June 29, 1990.

Call (203) 742-5239  
for complete registration info.

SIGN UP NOW FOR 3 CONNECTICUT RACES!



40 Mile Criterium  
Columbia City Fair,  
Columbia, MD  
Rain or Shine.

Cash prizes to top 20 riders.  
Cash bonuses to top team  
top CAT III, top Master.  
For Women Only.  
Cat III/III & Masters.



## 1990 ROFFLER WOMEN'S Cycling Classic

Presented by



DIAMOND BACK  
100% 100% 100%

Women's  
SPORTS & FITNESS

INSULATION  
SPORTS

Capital  
Sports  
Focus

Sunday June 17-11:30 am

\$10,000 in Cash Prizes

Early Registration Deadline May 25

Early Registration Fee: \$30.00

For registration information contact:

NCS NATIONAL CONSULTING  
STRATEGIES

2446 Reddie Drive, Suite 11  
Silver Spring, MD 20902  
(301) 929-0677



## REVIEW

If you've never led a ride because you didn't know where to go, then "25 Bicycle Tours in New Jersey" is the book for you. The rides in the book cover over 900 miles, ranging in length from 11 miles to 75.3 miles. They're of varying levels of difficulty, including two overnights.

Every ride has been tested by the book's authors, Arline and Joel Zatz. The Zatzes seem to have discovered the best of the Garden State, as all rides include some type of natural, cultural, or historical feature.

Actually, this book is worth buying just for its informational value alone about New Jersey. It's chockfull of all sorts of interesting trivia (Essex and Union counties were purchased from the Lenni-Lenape Indians for a mere "50 double hands of powder, 100 bars of lead, 20 axes, 20 coats, 10 guns, 20 pistols, 10 breeches, 50 knives, 20 hoes, 850 fathoms of wampum, 3 troopers coats, and 32 gallons of water").

It's easy to choose a ride as the book is divided into 3 sections -- north, central, and south. At the beginning of each ride, the location, starting point, terrain, traffic conditions, distance, and trip highlights of the ride are all listed. Anyone who has ever complained about cue sheets on BTCNJ rides will appreciate the running mileage and accompanying maps. Also included with each tour are bicycle shops that can be found along the way. "25 Bicycle Tours in New Jersey" sells for \$ 8.95 and is available at most bookstores, bicycle shops and sporting goods stores.

- Donna Puizina



Sunday, June 17, 1990

Millbury, MA

\$5,000 Prize List

CATEGORY	DISTANCE	PLACES	PRIZES	ENTRY FEE	TIME	FIELD LIMIT
Citizen	10 mi.	3	Merchandise	\$12	12:45 p.m.	50
Women	20 min. + 3 laps	10	\$500	\$10	1:15 p.m.	100
Masters	20 min. + 3 laps	10	\$500	\$10	1:55 p.m.	100
45-54, 55+						
Senior 4	20 min. + 3 laps	10	\$500	\$10	2:35 p.m.	100
Senior 3	25 min. + 3 laps	10	\$500	\$10	3:15 p.m.	100
Juniors	25 min. + 3 laps	10	\$500	\$10	4:00 p.m.	100
Masters	35 min. + 3 laps	15	\$1000	\$15	4:45 p.m.	100
35-44						
Senior 1.2	45 min. + 3 laps	15	\$1500	\$20	5:40 p.m.	100

Post entries after June 10 add \$4

\$1 USCF Insurance charge included in entry fee

1-mile criterium — Plenty of prizes — Cable TV coverage

Promoted by: Millbury Lions Club • Blackstone Cycling Promotions  
Worcester Road Club • Team Bums

Sponsored by: Atlas Distributing • Miller Lite Beer • Millbury Amusement Center  
Columbo Yogurt • Look Pedals USA • Sony Corp. • Poland Spring Water  
Exced Sports Nutrition System • Ultimate Direction

Information: 1st Place Bicycles-Skis, 17 S. Main St., Millbury, MA 01527 • (508) 865-4873  
Send standard athlete entry form

3rd Annual

## New England Mountain Bike Championships

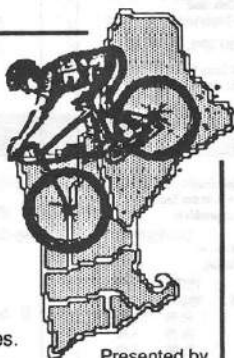
at Mount Snow, Vermont

June 30 & July 1, 1990

\$15,000 Cash Purse plus Merchandise Prizes.

Part of the 1990 Coors Light National Point Series,  
presented by NORBA and Specialized.  
All NORBA classes.

For Info Call: 603-756-9571



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Bike Championships  
810 Mountain Rd  
Mount Snow, VT 05356

\$10,000  
CASH  
PRIZE  
LIST

3rd Annual

OSSINING  
GRAND PRIX  
BICYCLE RACE

JULY  
4th,  
1990

Class	Distance	Places	Value	Entry	Start Time
Citizens	8 miles	3	medals	\$11	8:00
Juniors	15 miles	25	\$1250	\$18	9:00
Sr. Men 3/4	15 miles	25	\$1250	\$18	10:15
Women	15 miles	25	\$1250	\$18	11:30
Veterans	15 miles	25	\$1250	\$18	12:45
Pro 1 & 2	33 miles	30	\$5000	\$25	2:00

Unattached riders add \$5

Late entry (after 7/1/90) add \$5

Race will be held on the same course as 1989.

All USCF Rules will apply. Free lap rule is in effect.

For racer information package, send SASE to:

Ossining Grand Prix, P.O. 670, Ossining, NY 10562

For additional information call Rich Garcia (914) 245-7741

USCF permit applied for

# THE SEVENTH ANNUAL GREAT STEAMTOWN BIATHLON

## RACE INFORMATION

DATE/TIME: SUNDAY, JULY 8, 1990, 7:30 A.M.

LOCATION: NAY AUG PARK, SCRANTON, PA

ORGANIZERS: J. MICHAEL SCHIRRA HAIRSTYLING  
ROLLING ROCK PREMIUM BEER  
ROYAL BOTTLING CO., SCRANTON  
PAUL GRONSKI ENT. INC.

BENEFICIARY: BIG BROTHERS/BIG SISTERS LACKAWANNA COUNTY

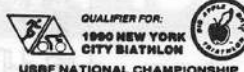
DISTANCES: 2 MILE RUN, 20 MILE BIKE, 2 MILE RUN

FIELD LIMIT: 300 PARTICIPANTS

ENTRANCE FEE: \$20 IF POSTMARKED BY JUNE 23, 1990  
THEN \$25 UNTIL RACE DAY

REGISTRATION: Send APPLICATION along with a CHECK or MONEY ORDER

to: STEAMTOWN BIATHLON  
SUITE 128  
930 S. WASHINGTON AVE.  
SCRANTON, PA 18508



Jun 16 Miller Incredible Journey Triathlon, Bobi Dallas, (315) 457-4422, Onondaga Lake Park, P.O. 146, Liverpool, NY 13088, Onondaga Lake Park, Liverpool, New York  
Canoe: 5.6m B: 15m R: 6.2m

Jun 16 S2K Sprint Triathlon, DMSE, 430C Salem Street, Medford, MA 02155, (617) 396-3001, Hyannis, Massachusetts  
S: .25m B: 8m R: 3m

Jun 16 Severna Park YMCA Triathlon, Mark Bachman, Severna Park YMCA, 623 Baltimore Annapolis Blvd., Severna Park, MD 21146, (301) 647-3800, Edgewater, Maryland  
S: .5m B: 10m R: 3.5

Jul 15 Bud Light U.S. Triathlon Series, New England, CAT Sports, 5966 La Place Court, Suite 100, Carlsbad, CA 92008, (619) 221-5555, Burlington, Vermont  
S: 1.5k B: 40k R: 10k

Jul 15 Carbon County Triathlon, Ed Vermilion, 625 Interchange Road, Lehighton, PA 18235, (215) 377-5905, Lehighton, Pennsylvania  
S: 1.2m B: 32.2m R: 10m

Jul 16 High Peaks Cyclery Mini-Tris, Brian DeLaney, 18 Saranac Avenue, Lake Placid, NY 12946, (518) 523-3764, Lake Placid, New York  
S: 400 meters B: 12m R: 2.75m

Jul 21 American Red Cross Governor's Cup Triathlon, Donna Nelson, P.O. Box 5184, 1804 North 6th St., Harrisburg, PA 17110-0184, (717) 234-3101, Pinchot State Park, Rossville, Pennsylvania  
S: .5m B: 10m R: 3m

Jul 21 Bud Light Lion's Journey for Sight Triathlon, Al Hastings, c/o Auburn YMCA-WEIU, 29 William Street, Auburn, NY 13021, (315) 253-5304, Village Park, Union Springs, New York  
S: 1.5k B: 40k R: 10k

Jul 28 Corkscrew Team Triathlon, David Kennedy, Route #2 Box 2756, Reading, PA 19605, (215) 926-4303, Reading High School, Reading, Pennsylvania  
R: 3.1m B: 6.2m S: 150 meters R: 2m

Confirmations will be mailed along with directions and rules. Mail your application early to avoid disappointment and confusion.

AWARDS: MALE: 18-24, 5 places; 25-29, 5 places; 30-34, 5 places;  
35-39, 3 places; 40-44, 3 places; 45-49, 3 places;  
50-54, 3 places; 55 and over, 3 places.  
FEMALE: 18-24, 3 places; 25-29, 3 places; 30-34, 3 places;  
35-44, 3 places; 45 and over, 3 places.  
OVERALL: TOP 5 MALES & TOP 3 FEMALES

Because we are a Qualifying Event for the 1990 New York City Biathlon (Invitational) - U.S.B.F. National Championship, that will be held in Central Park on November 11th, 1990, the TOP 20 MALES & the TOP 10 FEMALES will qualify (minimum age is 18)

AMENITIES: Water stations on run. Water bottles exchange on bike. Post race food. T-Shirt and Bicycle magazine etc. Medical Aid. Random Prizes. Awards ceremony. Race results will be mailed out.

## SEVENTH ANNUAL GREAT STEAMTOWN BIATHLON ENTRY FORM

I, the undersigned, hereby acknowledge that participation in the Great Steamtown Biathlon carries with it potential hazard. I am aware that vehicular traffic and pedestrians will be using the same roadways as I during the event and that a collision could cause injury or death. In consideration of and as a condition of my participation in the said event, I, the undersigned, intending to be legally bound hereby, for myself, my heirs, executors, administrators and personal representatives, hereby waive and release any and all rights and claims for death, damages, illness, injuries, or losses which I have or may have occur to me against all sponsors, race promoters, race officials, organizations, and volunteers conducting or involved in this event, including but not limited to J. Michael Schirra Hairstyling, Rolling Rock Premium Beer, Big Brothers/Big Sisters Lackawanna Counties, Royal Bottling Company, Inc., Paul Gronski Enterprises Inc., the City of Scranton, Roaring Brook Township, Covington Township, the Township of Springbrook, the Borough of Dunmore, Lackawanna County, and any or all of their employees, agents, representatives, successors and assigns that may result from my participation in said event and travel to and from said event. I understand that this event is strenuous, requiring physical exertion, and I hereby certify I have properly trained and am in proper physical condition to participate in said event. I authorize the officials of this event to use their discretion to have me transported to a medical facility and/or administer medical aid, and I will take the responsibility for such action. Further, I hereby grant full permission to the aforementioned persons and/or organizations to use my name and/or picture in any newspaper, TV program, video tape, motion picture recording, or any other record or other account of this event, for any purposes whatsoever. I have read and understand the official rules of this event. By submitting my application, I agree to the terms delineated above.

Please Print Clearly

Last Name First Name Sex Male Female Age on race day

Mailing Address Street Include Apt. No. and or CO

City State (or Country if not USA) Zip

Area Code Phone

Shirt size: sm med lg xl Occupation

Date: Signature

Parent or Guardian if under 18

DETACH AND RETURN WITH REGISTRATION FREE

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# AMT.

## TANDEM CALENDAR 1990

July 1, 1990. **Double or Nothing Tandem Ride.** Carmel, NJ. Time: 9:00 a.m. Sponsored by the Carmel Fire Department, this family-oriented social ride is an out and back ride in Salem & Gloucester Counties. 44 or 66 miles. \$35.00 per team, pre-registration only by June 25, 1990. Includes food, sag, maps, lunch, and dinner. SASE to Mel Kornbluh, RR8, Box 319-E Gwynwood Drive, Bridgeton, NJ 08302.



I knew your stoker would teach you  
a lesson for making her change that tire.

July 28-29-August 3, 1990. **Berkshire Pre-Tour (of the ETR).** Tour the scenic Berkshire hills of western MA & CT and enjoy the cultural attractions of the area such as the outdoor Shakespeare Theatre. Get acquainted at an evening picnic at Tanglewood (summer home of the BSO). Around 50 miles per day with hills to enjoy fine dining at night. Limited to approximately 10 teams. For more information, send SASE to Sue & Al Berzins, 178 Hubbard St., Lenox, MA 01240

July 30-August 2, 1990. **Family Tandem Pre-Tour (to ETR'90).** Hadley, MA. Three days of easy rides and fun geared to (but not limited to) families with "kiddy-backs" and "Buggers". Plans include swimming, hayrides, playgrounds, and a visit to Old Sturbridge Village (a recreated 1830's New England Village). Send a SASE to Frank & Cindy Rosen, 28 Sherwood Drive, Belchertown, MA, 01007. (Phone 413-323-7997).

August 3-5, 1990. **Eastern Tandem Rally.** University of Massachusetts-Amherst. For more information, send a SASE to Al Shane & Marion Gorham, RFD#3, Two Mile Road, Amherst, MA 01002.

August 6-12, 1990. **ETR Post-Tour** through the winding countryside of central MA. The tour will begin and end in Sturbridge, MA, a short one-hour automobile ride from Amherst. The cost will be approximately \$550/team (a price increase may occur if sag-service is provided). The fee includes six nights accommodations, four breakfasts, and a dinner at the at Victorian Barre Hotel. Except for a two-night stay at the Chockset Inn, we'll be at a different Inn each night. Mileage can vary from 30-100+ miles. If you are interested, a \$300 deposit is due NOW. Contact Jerry & Lois Jacobs, 48 Stark Road, Worcester, MA, 01602 (508)-752-4966 for more information.

**VOLUNTEER**  
TO  
**VOLUNTEER**

# Tandems East

## A Complete Tandem Shop

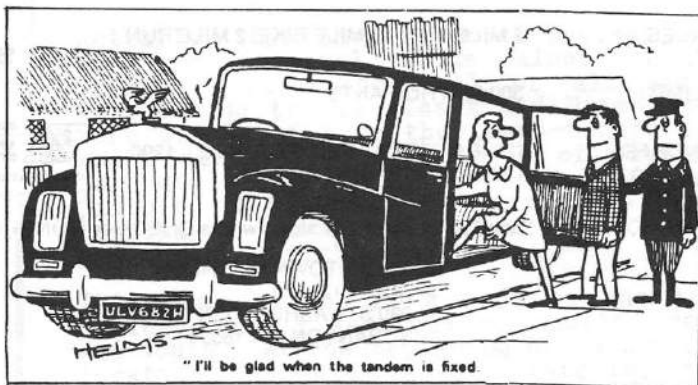
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"I'll be glad when the tandem is fixed."

## TANDEM RACES -- 1990

June 17, 1990. **Mt. Tabor Criterium.** Portland, OR (Hilly!) Russell Morton or Rene Kane at the Burley Design Cooperative, 4080 Stewart Road, Eugene, OR 97402. Ph: (503)-687-1644.

June 29-July 4, 1990. **3rd Burley Duet Cycling Classic.** The only Tandem Bicycle Stage Race in the US. Eugene, Salem, Springfield, Brownsville, Cottage Grove, OR. \$6000 prize list puts this on par with other major tandem events around the world. Russell Morton or Rene Kane at the Burley Design Cooperative, 4080 Stewart Road, Eugene, OR 97402. Ph: (503)-687-1644.

July 13-15, 1990. **Starved Rock Classic.** Ottawa, IL. A three-day, four-event stage race. USCF sanctioned event with all USCF Categories and Citizens classes, plus a tandem category. Captain and Stoker must both be USCF licensed (Open Class). \$800 in prizes. 20K Time Trial, 25 mi. Twilight Criterium over .62 mile course, Starved Rock Road Race -- 48 miles over a hilly course, Vermillion Gorge Circuit Race - 30 miles on a hilly course. Tom Weiss, Route #4, Ottawa,

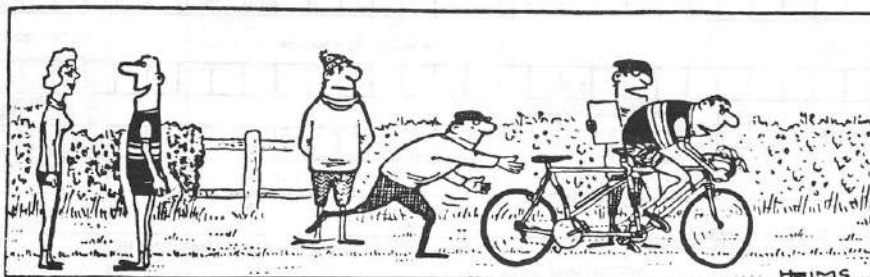
IL 61350 ph: (815)-433-4589 or Dixie DeVry ph: (815)-434-6162.

August 12, 1990. **Centralia Criterium.** Centralia, WA. (Flat & fast course). Russell Morton or Rene Kane at the Burley Design Cooperative, 4080 Stewart Road, Eugene, OR 97402. Ph: (503)-687-1644.

August 19, 1990. **Mt. Hood Loop Criterium.** Rippling Rivers, OR. (Flat & fast). Russell Morton or Rene Kane at the Burley Design Cooperative, 4080 Stewart Road, Eugene, OR 97402. Ph: (503)-687-1644.

August 26, 1990. **Northwest Tandem Road Race Final.** Salem, OR. (Hilly). Russell Morton or Rene Kane at the Burley Design Cooperative, 4080 Stewart Road, Eugene, OR 97402. Ph: (503)-687-1644.

September 2, 1990. **Scars Point International Cycling Championships,** Sonoma, CA. (tentative for now). Russell Morton or Rene Kane at the Burley Design Cooperative, 4080 Stewart Road, Eugene, OR 97402. Ph: (503)-687-1644.







# BIKE LINE®

## MOUNTAIN ISSUE

### *HOT* ACCESSORIES FOR THE 90's

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Avocet Gel Flex Saddles

SR "Tall Cool One" Seat Posts

Scott "Sticky Fingers"

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Matrix Rims

"T" Bone Stems

Ritchy Mega Bite Tires

Specialized Fat Boys

Farmer Johns-Cousins-Nephews

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Low Fat Pedals

Shimano ATB Shoes & Pedals

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Cat Eye ATB Computer

Mavic Rims & Components

Blackburn MTB Racks

Oakley Glasses

Grove Innovations

Fat City Cycles

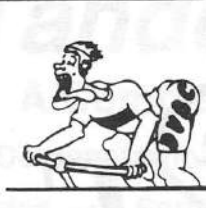
#### IN PENNSYLVANIA

<b>PAOLI</b> Paoli Shopping Ctr. 647-8023	<b>WAYNE</b> 165 W. Lancaster Ave. 687-1110	<b>WEST CHESTER</b> 200 W. Gay Street 436-8984	<b>BROOMALL</b> 2619 West Chester Pike 356-3022
<b>EMMAUS</b> 831 Chestnut St. 967-1029	<b>ALLENTOWN</b> 1728 Tilghman St. 439-1724	<b>PHOENIXVILLE</b> 711 Nutt Rd. 935-9111	<b>COLLINGDALE</b> 533 Mac Dade Blvd. 583-7711
<b>ARDMORE</b> 55 W. Lancaster Ave. 649-9839	<b>BETHLEHEM</b> 2112 Schoenersville Rd. 691-0943	<b>PHILADELPHIA</b> 1028 Arch Street 923-1310	<b>KENNETT SQUARE</b> 520 S. Union St. 444-0399

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<b>NEWARK</b> 212 E. Main St. 302-368-8779	<b>WILMINGTON</b> 2900 N. Concord Pk. 302-479-9438
<b>DOVER</b> 595 N. Dupont Hwy. 302-678-1772	<b>PIKE CREEK</b> Pike Creek Shp. Ctr. 302-998-0202

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The above mailing label constitutes a DVBC membership card expiring 60 days past postmark.

## FIRST CLASS MAIL

The DVBC is a non-profit corporation formed to educate the public as to the safe use of the bicycle through lectures, seminars, planned rides, and other activities promoting the bicycle as an efficient and enjoyable means of exercise, recreation, and transportation.

Non-members are welcome on rides, but are urged to consider their ability and experience when selecting a ride. (See Ride Guidelines.) All rides are subject to cancellation due to weather. If in doubt about the weather or level of difficulty of the ride, please call the ride leader. Though the use of safety equipment, particularly helmets, is strongly urged, the club cannot accept responsibility for accidents or injury while participating in a DVBC event.

### Application for 1990 DVBC Membership (Expires 2/28/91)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Membership Type: ☐ Individual - \$10 ☐ Family - \$14

Membership includes: *DVBC Newsletter Magazine*, discounts at most Club sponsors, Club subsidized events, and free *Bicycle Touring Newsletter* published quarterly (\$3 value). Family membership includes two adults and up to two children. Your membership attracts advertisers and helps influence local government decisions concerning bicycle issues.

#### INTEREST SURVEY

##### Ride Pace

- ☐ Class D: *slow*  
☐ Class C: *average*  
☐ Class B: *brisk*  
☐ Class A: *fast*  
☐ Off-Road

##### I'll volunteer for:

- ☐ Ride Leader  
☐ Sag Wagon Driver  
☐ Tour Food Stop  
☐ Newsletter Editor  
☐ Newsletter Typist
- ☐ Newsletter Collator  
☐ Advertising Coordinator  
☐ Newsletter Co-editor  
☐ Newsletter Delivery  
☐ Triathlon Editor

Please send your check or money order to:

**Delaware Valley Bicycle Club**  
**P.O. Box 497**  
**Media, PA 19063**

*The DVBC Safety Foundation is established to promote bicycle safety in the Delaware Valley using posters, flyers, bumper stickers and rewards.*

I wish to donate to the DVBC Safety Foundation:

☐ \$1 ☐ \$2 ☐ \$5 ☐ \$10 ☐ \$15 ☐ \$20 ☐ \$25

#### Membership to DVBC Subdivisions

You must join the main organization (left half of this form) in order to be able to join a DVBC subdivision.

- ☐ \$7.00 DVBC-Team Drexel Hill (Road Racing)  
*Drexel Hill Cyclery*
- ☐ \$5.00 Team Delaware Valley Bicycle Club  
*Team Casual! (Road Racing)*
- ☐ \$5.00 DVBC Triathlon Div.
- ☐ \$5.00 DVBC Tandem Div.

**Total Amount Enclosed**