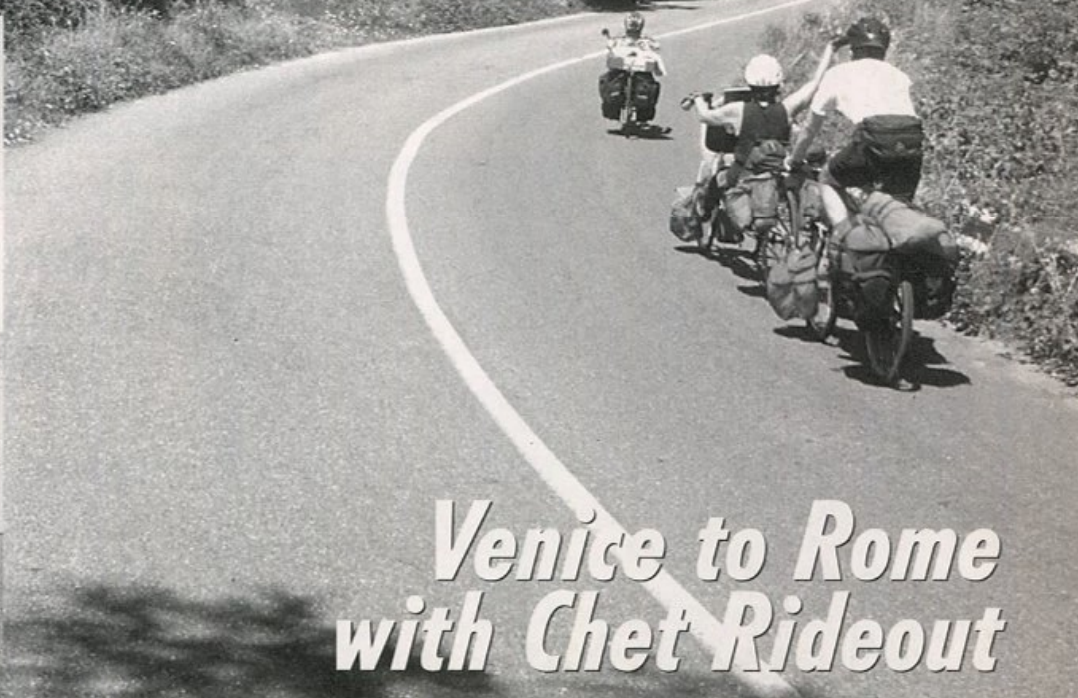
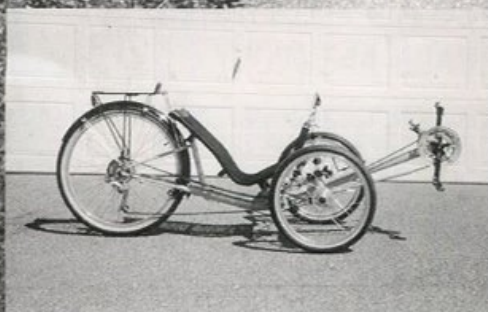
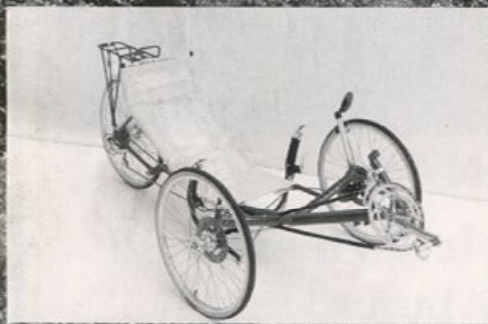


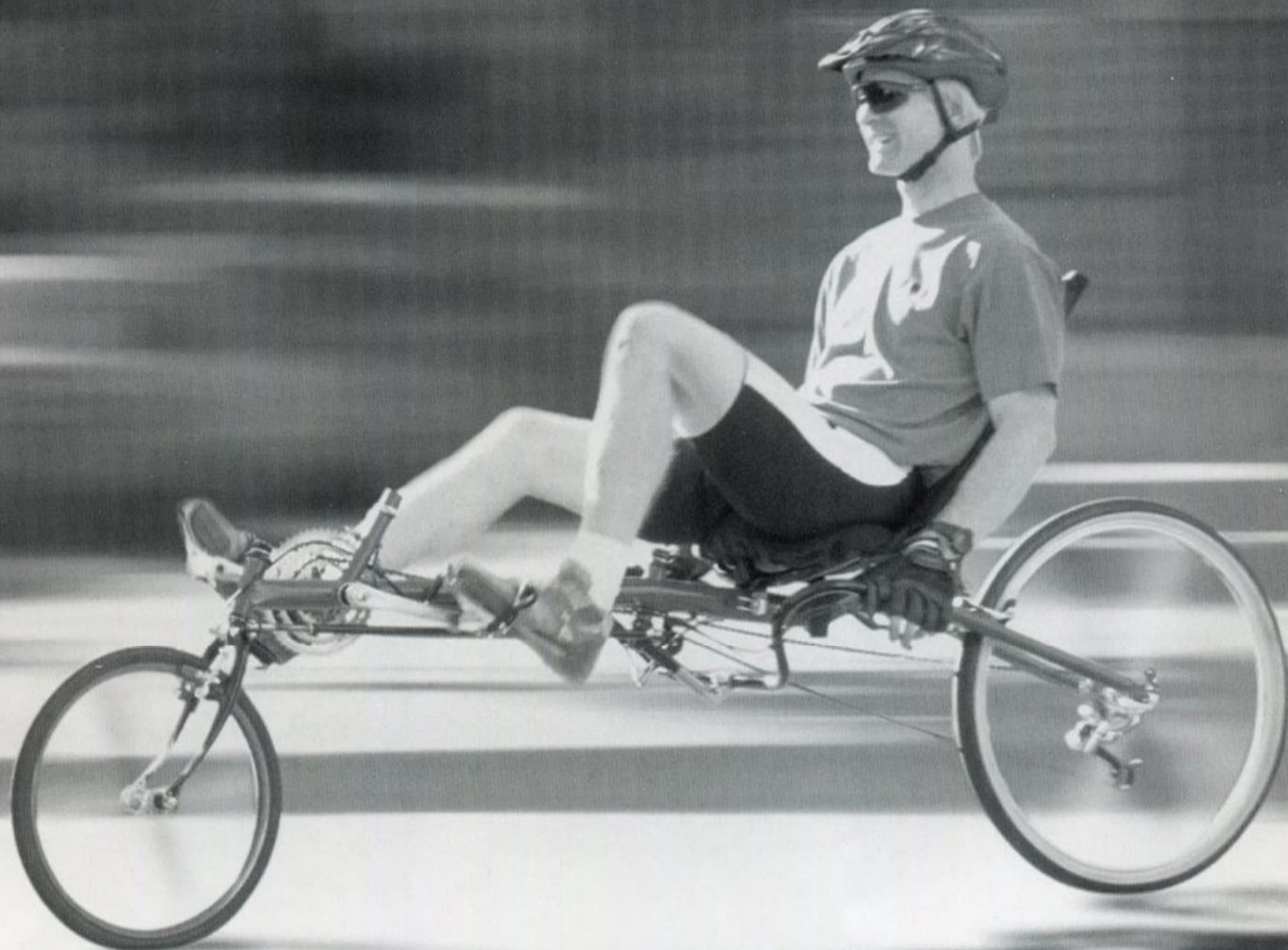
# RCN

RECUMBENT CYCLIST NEWS

ROAD TESTS  
**ZOX•26**  
**ICE TRICE**  
**GREENSPEED/GTS**



*Venice to Rome  
with Chet Rideout*



RECOMMENDED BY  
4 OUT OF 5 CHIROPRACTORS.  
THE FIFTH HASN'T  
COME BACK YET.

IF IT FEELS LIKE YOU'RE SITTING IN A BIG, COMFORTABLE CHAIR,  
IT'S BECAUSE YOU ARE. YOU'RE ON A VISION. YOU'RE FEELING NO PAIN.  
NOT IN YOUR HANDS. NOT IN YOUR WRISTS. NOT IN YOUR NECK. NOT IN YOUR BACK.  
SEE A CHIROPRACTOR FOR DETAILS. IF YOU CAN FIND ONE.

877.433.4273 [www.visionrecumbents.com](http://www.visionrecumbents.com)

*Vision*  
recumbents™

# BBH

## Hand Crafted Excellence

At Bicycles By Haluzak we offer you the best of all worlds: Stability, Comfort & Speed.

### Horizon

#### BBH unique design features:

40.5" wheel base

1:1 linkage under seat steering for stability

Ajustable & breathable full sling mesh seat

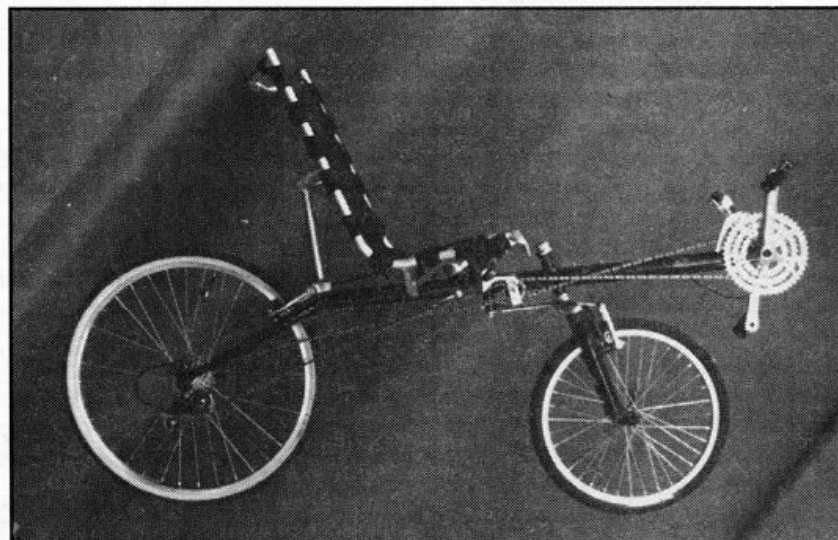
The most ergonomic hand position available

21.1 to 113.4 gear inches (expandable)

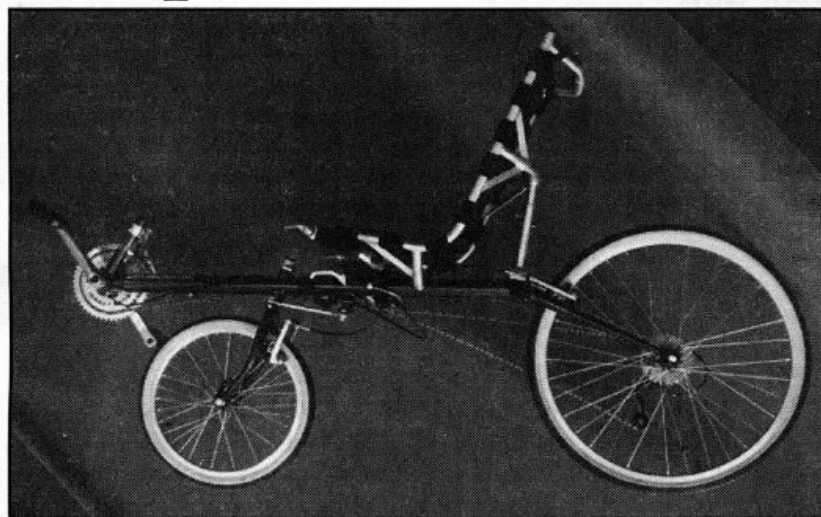
All models are made

in the

USA



### Leprechaun



#### Check out the '99 specs!

Shimano '99 105 derailleurs

'99 LX 11-32 9spd. cassette

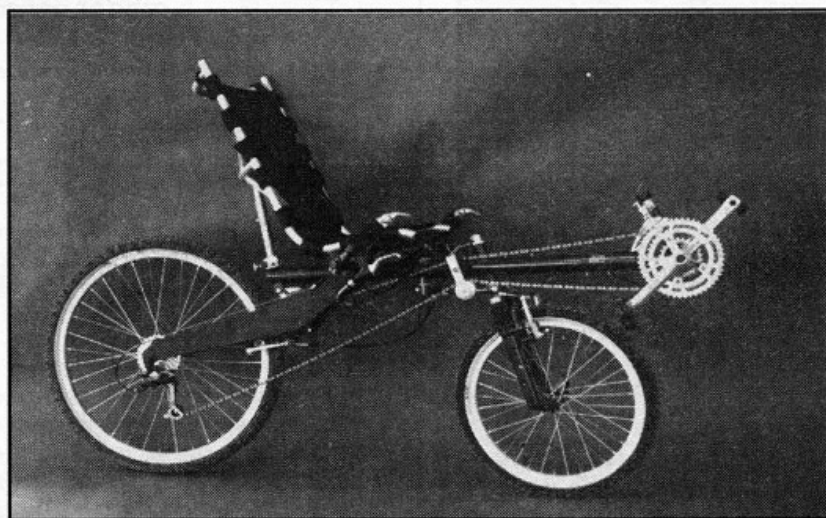
'99 LX V-brakes & levers

Dura Ace 27 spd bar cons

Sun Metal CR18 rims

'99 LX hubs

### Traverse



#### Bicycles By Haluzak

70 West Barham Ave.

Santa Rosa CA 95407

(707) 544-6243

haluzak@sonic.net

www.haluzak.com

**\*Complete store on the web,  
Including your local DEALER!**

**Editor/Publisher**

Robert J. Bryant

**Circulation**

Marilyn Jayne Bryant

**Art Department**

Mark Colliton

**Associate Copy Editors**

Paul Arends • Christine Peterson

**International Distributor**

Ron Schmid

**Subscription Information**

\$40 1-Year/6-Issue Sub via First Class Mail

\$70 2-Year 12 Issue Sub via First Class Mail

\$60 World-Wide Airmail (USD /bank draft)

**Info Requests** Tel. 253/630-7200**Office**—Tel. 253/631-5728**Fax**— We don't have one—mail it!**RCN Internet**

Email: DrRecumbnt@aol.com

Our new website should be up and

running by early April:

www.recumbentcyclistnews.com

**Recumbent Cyclist News**

is published six times a year by

Recumbent Cyclist International,

PO Box 58755, Renton, WA 98058

**Credit Card Orders**

Sorry, we do not accept credit cards.

**Ad Rates**

For commercial rates call 253/631-5728

**About the Mail Service**

Effective January 1999, we have stopped accepting standard 3rd class/bulk mail subscriptions. This service is primarily used for "junk mail." Replacing the missing issues had become too costly as well as tedious. First class mail is more expensive, though we feel it is necessary to make this move.

We will no longer accept outdated order/renewal forms. If you need an RCN order form, email us or call 253-630-7200 and we'll mail you one.

If you have a standard subscription and would like to upgrade, the cost is \$5 per year or \$1 per outstanding issue.

Copyright © 1999 by Recumbent Cyclist International. Contents may not be reproduced in whole or part unless expressly authorized in writing by the editorial office.

Although we at Recumbent Cyclist News make every effort to provide useful and accurate information, we do not claim to have definitive answers—particularly with regard to safety, technique and equipment.

**What We Don't Do**

Due to our minimal staff, we do not: give bike-buying advice, return advice calls, take credit cards, credit card orders, overnight orders, or bill for orders. We ask that you be patient, as we do make mistakes, but we guarantee that we'll do our best to correct them if and when we do.



R E C U M B E N T C Y C L I S T N E W S

*The Voice of the Recumbent World***Issue #51****Since 1990****May/June 1999****Features**

- 10 **REVIEW: The Greenspeed GTS Trike**
- 16 **REVIEW: The ICE TRICE**
- 20 **Venice To Rome by Recumbent Bicycle**
- 23 **Style Enough for the Big Time?**
- 25 **Choices for Transporting your Recumbent**
- 28 **The HPM Trick SWB Recumbent**
- 30 **Adventures with a Speed Ross**
- 33 **The Industry Responds to Bentan Pist**
- 36 **REVIEW: The ZOX 26 Speed & Thrills**
- 38 **The Cannonball Chronicles**

**Departments**

- 5 **Editorial License**
- 6 **Recumbent News**
- 9 **Calendar/Recumbent Rumors**
- 36 **Bikin' Bill's House of Big Fun**
- 38 **The Notebook of an Unreasonable Man**
- 41 **Recumbent Mail (Letters)**
- 45 **Classified Ads**
- 47 **Rider Group Listing**

**RCN Notes**

✓ **CANADA**— Effective immediately RCN Canadian Subscription sales and distribution will be taken over by Cambie Cycles in Vancouver, Canada. Issues will be shipped to Cambie and mailed to points across Canada. Cambie can be reached at Tel. 604-874-3616, r-bent@portal.ca or www.cambiecycles.com

✓ **TWIKE**— A reader sent us an article/photos of a **Twike**. Will the author please email Bob @ RCN ASAP.

✓ **RECUMBENT ANTHOLOGY**—will be back in RCN#52.

**RCN Contributors**

Robert J. Bryant • Mark Colliton • Kent Peterson • John Riley  
Zach Kaplan • Peter Lewis • Bill Volk • Brad Teubner • Chet Rideout  
Christine Peterson • Ron Schmid

**Cover Photo Credit** Photo courtesy of Chet Rideout from his tour in Italy on a road near Poggibonsi.

**Fine Print:** RCN is published by Bob and Marilyn Bryant & family in Kent, Washington. We are a two-person company. We publish from our home office. We have no employees, only dedicated volunteers and friends who work cheap. We are as far from a corporate affair as you can possibly imagine. This magazine is published by enthusiasts, for enthusiasts—because we love recumbent bicycles. We are the voice for the enthusiast recumbent world since 1990.

# The Curse (!?) of Recumbency

Robert J. Bryant, DrRecumbnt@aol.com



Some say Bob likes two wheelers better.....

**O**n Monday February 29th, 1999, a cool wind swept over Soquel, California and Emmaus, Pennsylvania. The powers that be at Rodale Press laid off 13 people (39 positions) at *Bicycling Magazine*, including all of the west coast office. Friends of recumbency Jim Langley (who covered the Yreka HPV races in 1992, and has built his own recumbent in the mid-'80's) and current Editor Geoff Drake were among the downsized. "They just showed up, took our keys and told us to be gone," said Jim Langley.

We can all admit that *Bicycling's* recumbent coverage was a bit lightweight—though have you noticed that there were recumbent articles or press in nearly every issue as of late? The annual April 1999 *Bicycling Buyers' Guide* covered recumbent bicycles on (nearly) equal footing with mountain, road, hybrid, cruiser—with their own section showing some lycrahead riding a Rans Tailwind through a shallow stream (common occurrence). This level of acceptance and coverage was years in the making—and we can thank former Editor Geoff Drake, Jim Langley and the former powers that be at *Bicycling* for their insight and willingness to learn about our favorite kinds of bikes. The change over the last ten years in how recumbents were portrayed is staggering. February 29th was a sad day for all cycling fans and *Bicycling* readers.

Cycling is losing ground as a sport. Maybe it's the safety issue, lack of good places to ride. But I think, as Geoff Drake put it so eloquently in a recent editorial, that kids today just never got into the freedom that cycling brought to us boomers when we were kids. I can remember riding across town, and all around. My bicycle was my freedom machine. As life got more complex—I came back to the bicycle as the vehicle of my youth. Bicycle=Freedom. Mortgages, jobs, life problems don't matter. Just Ride. Cheap Thrills.

All of the mainstream bike mags are corporate entities whose business is to sell advertising. Until I heard about the layoff at *Bicycling*, I was prepared to slam them in this editorial after I counted 13 glossy full-color, full-page yuppie-style car ads. I thought to myself, how can they be bicycle advocates when they take thousands of dollars per issue to glorify the automobile?

Maybe the bottom line is that corporations need to sell, sell, sell and make money, more money, even more money, and it is never enough. Sell, sell, sell. Your old stuff is outdated. Buy, buy, buy.....

How timely this is. Isn't it interesting how these seemingly disconnected occurrences may be connected? I received lots of support from readers from my "Big Time" editorial in RCN#49 about our flirtations with being bought out and going big time. Our decision to dump

3rd class/bulk mail was also supported in the form of lots of renewals and especially lots of two year \$70 renewals (*thank you readers*). So here is how it all ties together. The only way big magazines stay in business is by selling expensive ads to mega corporations. The bicycle industry is screwed up with lots of problems and for whatever reasons, the revenues just aren't there—so they look elsewhere. When that doesn't work, they downsize (fire) people and combine operations enough to improve the bottom line. The next step is to sell to another potentially sleazy corporation who may do the same thing.

*Bicycling Magazine's* operations are now under the umbrella of Mountain Bike Magazine (which was once an expansion of *Bicycling*). The problem for recumbent folks is that mountain bike mags generally have the *WRONG* demographics for recumbent manufacturers— young, gonzo hard core mountain bike riders who don't have the money to buy \$2,000 bikes.

## ▼ THE CURSE!?

Every time we (recumbency) get close to the mainstream, something happens. In the early days it was the UCI banning the Velocar record. Then it was a pair of world wars ruining the plans of the early commercial recumbent builders. After a long hiatus, it was the curse of fragile and inferior HyperCycle frames that helped invent many so-called recumbent cliché's, and then there was the rise and fall of ReBike (see page 8 of this issue). The Trek situation leaves a lot to be desired. Many of the people originally involved with the Trek recumbent have left the company. The marketing department seems uninterested in recumbent enthusiasts (and RCN). We are obviously small potatoes in the world of *BIG TIME* bike manufacturers.

Companies like BikeE, Rans, Vision, and others have worked hard to help mainstream recumbents and gain acceptance with the slick and glossy masses. *Bicycling's* Drake and Langley listened, learned and came around in a big way only to have the house of cards fall one more time. Let's hope that Jim and Geoff continue to write about bicycles.

As for the Recumbent Curse, lets just hope that I am wrong and that recumbent bicycles can stand on their own enough to over-ride the latest chapter in bicycle industry/media downsizing and corporate takeovers. I've seen it happen many times with *Bicycle Guide*, *Bicyclist*, and others. Hey, at least they still have RCN.

Viva Recumbency

Bob Bryant □

## RCN MAILING LABEL INFO

### PLEASE READ:

After you subscribe to RCN, the top line of your mailing label will read as follows: "   LAST ISSUE" In the blank will be a number, such as "**60** LAST ISSUE." Which indicates that RCN#60 is the last issue of the subscription that you paid for.

### RENEWALS

We will only send you *ONE* renewal notice with the issue prior to your subscription being expired. If your mailing label says, "**60** LAST ISSUE," you will receive your ONE renewal notice with RCN#59. □

## For Your Information...

### IF YOUR MAGAZINE DID NOT COME IN AN ENVELOPE—PLEASE READ THIS

Due to irregular service, we are *NO LONGER* accepting standard/3rd class mail RCN subscription orders. You can upgrade your subscription for \$1 per outstanding issue. We plan to ship issues RCN#51, 52, and 53, 3rd class. After which, all outstanding subscriptions will be converted to first class. Some long term subscription renewal dates may be affected. If you have a problem with this, please let us know. This is not a profit making venture, but a way for us to improve your RCN service. DrRecumbnt@aol.com □

# Recumbent News

March—April 1999 RCN#51

## Lightning Announces Performance-Oriented Thunderbolt

The 1999 Thunderbolt will retail for \$850 with rigid fork, and \$1050 with a Ballistic suspended fork. This new model represents a breakthrough in recumbent value! For well under \$1000, the Thunderbolt is a perfect balance of strength, durability and performance. Weighing only a few pounds more than the high-performance Lightning Stealth, the Thunderbolt uses some clever engineering to reduce cost and add simplicity. High quality imported components are used—for example, components that substitute performance and value for a well-known name brand. The frame is high-strength carbon steel for durability and strength, at the expense of a bit of additional weight when compared to a CroMo frame.

For recreational or casual riders, the Thunderbolt may be just the ticket to miles of recumbent fun!

The Thunderbolt is designed to be easy to ride. With a seat four inches higher (compared to the Stealth and P-38), and a wheelbase 2 inches shorter, it has more of a traditional bicycle feel, and is a quick learn.

### ■ Features

- ✓ The same Patented Ergofit seat shape as on other Lightning recumbents, but with a simpler to manufacture frame and mesh seat
- ✓ Functional, reliable components: Shimano Acera/Grip Shift/V-brakes
- ✓ Kickstand, disc front chain guard, and water bottle braze-ons are included as standard equipment
- ✓ Two frame sizes for a custom fit
- ✓ Built in California
- ✓ Available Now!

### ■ Similar to the Stealth?

While at first glance, the Thunderbolt looks similar to the Stealth, the following aspects are different:

- ✓ The seat is four inches higher
- ✓ The wheelbase is 2 inches shorter
- ✓ The frame is made of carbon steel (not CroMo)
- ✓ Due to the slightly heavier frame and seat, it is about 2 lbs. heavier. So, if you know anybody who would like to ride a Lightning, but the high price has put them off, tell them to put their reservations in now!

For More Information Contact: Lightning Cycle Dynamics 312 Ninth St., Lompoc, CA 93436, Tel: 805-736-0700, Internet: info@lightningbikes.com □

## How far do you want to ride today?

www.lightningbikes.com

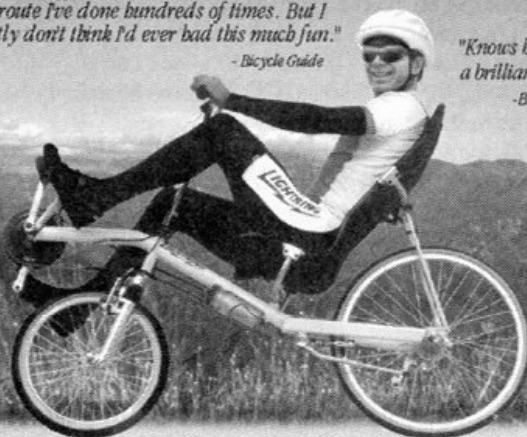
Andreas Weigel, IHPVA  
Road Race World Champion,  
trys out the new \$850  
Thunderbolt

"Back at the office, it dawned on me that it was the same route I've done hundreds of times. But I honestly don't think I'd ever had this much fun."

- Bicycle Guide

"Knows how to climb;  
a brilliant design"

-Bicycling Magazine



OK, maybe 600 miles in a day\* is a bit much, but Lightning's unmatched comfort\*\* and world record performance mean spirited cycling without any of the usual discomforts. Some recumbents are comfortable; some road bikes are fast—only Lightning is both!

- Patented seat and frame design
- Lightest recumbent bikes made
- Standard high-performance components
- Six models from \$850
- Over 20 world speed records
- Complete touring accessories

Send for our action video and color catalog, only \$5, or call for a dealer near you.

\* In 1994, Pete Pensyres rode 603 miles in 24 hours on a production Lightning F-40, to set a new World Record.

\*\* Based on study by Randy Lee, P.T., C.C.E.

## LIGHTNING

312 Ninth St., Lompoc, CA 93436, 805-736-0700

# Y2K is coming

## ...And that means the the 2000 RCN Recumbent Buyers Guide

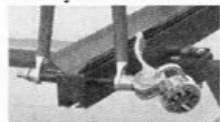
### TANDEM TOPPER



One Person Loading!

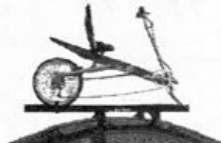
### TOPPER LOK

Fits any 9mm fork mount




Give your rack a security upgrade

### BIKE TOPPER



Models to fit any size 'bent

ATOC  
 ROOF RACKS  
TO FIT ANY TWO WHEELER  
(800) ATOC-021 <http://www.Atoc.com>

## TOPPER

Rack Products

## Have you received your RCN#50 yet?

### RCN

RECURBENT CYCLIST NEWS

THIS ISSUE  
BROMPTON  
Recumbent Kit  
and  
CAMBIE CYCLES  
Recumbent SWB  
PLUS  
CHILDREN OF THE  
LEISER MANIA  
by Kent Petersen



ROAD TEST  
'99 BikeE NX 5.0

All active subscribers should have received this issue. If you have not, give us a call at 253/630-7200.

# THE AGE OF THE BICYCLE



By MIRIAM WEBSTER

A 21st Century novel  
full of bicycles  
available through [amazon.com](http://amazon.com)  
and at local book and bike shops



**NorthEast Recumbents**

*BikeE / Vision / Lightning / Easy Racers /  
Windcheetah....& more for test rides & showroom*

CALL Tel. & Fax: 973-239-8968  
9 Wayland Drive, Verona, NJ 07044

## A Neat New Novel In Town

by Chris Symmank  
[entropy@eden.com](mailto:entropy@eden.com)

The Age of the Bicycle, a novel by Miriam Webster, Zinka Press Inc., Wayne, PA (1998) Tel. 610-688-2113, ISBN 0-9647171-2-3 (270 pages).

I didn't set out to review novels in this column, but when the writer of this book asked me to check it out, and when I quickly became impressed with the book, I concluded that it merits a listing. There are lots of reasons why I love this book. The title is one, the story another, and the boldness to go against the common grain of novels accounts for a few more reasons.

*The Age of the Bicycle* is an unusual treasure. While I am predisposed to liking it as a cyclist and environmentalist, any person who dreams of a world of bicycles, magic, and a little mischief will have a great time reading this book. Like a good Douglas Adams book, *The Hitchhikers Guide to the Galaxy*, for example, *The Age of the Bicycle* is great at having fun critiquing humanity in fun, adventurous, and inventive ways. Set in Tinny Waters, Texas, a fictional town reminiscent of Austin (Texas), *The Age of the Bicycle* explores what happens when all of the cars on the planet suddenly cease working. It follows several characters who are mysteriously connected to the stopping of the cars as well as a few deities (a bike-stealing water nymph, for instance, and a mischievous djinni).

Imagining a world where returning to bicycles is the main resource for keeping the world going may give you a whole new perspective on the Y2K issue. Would society fall to its knees, or would lots of great things start happening?

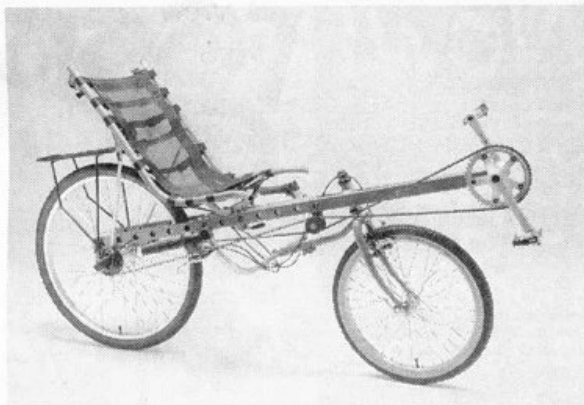
Would pollution drop, people become more healthy, and the wilderness get a chance to recover? Might there be tea shops where the interstate once was a giant slow-moving parking lot? What is a modern day Lucretius? What else could happen? And why is this a 21st century novel when it's written in the 20th century?

This book gets my highest recommendation. □

**Editor's Note:** The author is Amy Babich of Easy Street Recumbents in Austin, TX (Amy's pen name is Miriam Webster). You can order the book directly from Amy by sending a check for \$12.95 + \$3 Postage to: Easy Street Recumbents, 4507 Red River St., Austin, TX 78751. Amazon.com will special order it (4-6 weeks) for \$12.95 + shipping. You can also order the book from any book store using the above ISBN number (this is the best way as it gets the book into more stores—though not the fastest). This book is weird and wonderful—a real hoot—Bob, RCN.

Reprinted with permission from the Austin Cycling News. Subscriptions are \$20, Austin Cycling Assoc., PO Box 5993, Austin, TX, 78763

### Introducing the Trick SWB



HUMAN POWERED MACHINES



PRACTICAL & AFFORDABLE  
MACHINES  
CUSTOM WORK

Youth Framebuilding Apprenticeships

1-800-343-5568

Email: [cat@efn.org](mailto:cat@efn.org)

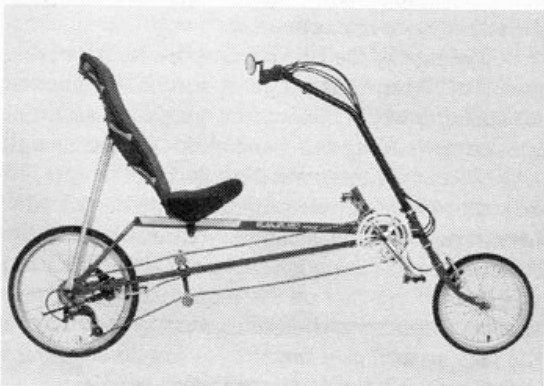
<http://www.efn.org/~cat/hpm.shtml>

A Project of the Center for Appropriate Transport

# Big News at RANS

## Wave Strike in '99.....

RANS is making Waves in 1999. Intended as a high quality, low-cost, entry-level recumbent, the long-wheelbase Wave combines features, performance and value sought by new riders. With RANS renewed mesh-back seat and fully triangulated CroMo steel frame, a low bottom bracket, 61" wheelbase and 23" seat high, the Wave offers durability, docile handling, high stability and significant vibration dampening. Included are components by such names as Shimano, ESP, Ritchey, and Dotek. Suggested retail price is \$695. For more information, contact RANS at (785) 625-6346 or click on [www.rans.com](http://www.rans.com).



'RIGHT: '99 Wave

## Trekking to RANS.....

Trek, Inc. has chosen to purchase RANS' highly regarded mesh-back seat for its initial venture in the recumbent bicycle market. RANS' was approached by Trek in 1998 and recently agreed to sell one thousand of the comfortable seats; Trek also asked for and was granted an option to purchase 500 more. Trek will feature RANS seat on its R200. □

# World HPV Championships 1999 - The Festival of Human Power

August 14-22 1999, Interlaken, Switzerland

The Swiss HPV association Future Bike and the city of Interlaken invites all HPV enthusiasts to the 1999 world championships. The two lakes and the great panorama of the surrounding mountains of the Swiss Alps give a special arena for all the events.

The championships start with the water events on the Lake of Brienz on August 13 and 14. The land events take place from 17.-22. on the airfield of Interlaken, a good race track for fast and exciting races.

The 4th International Seminar on Velomobiles "EXTRA ENERGY:

Assisted Human Powered Vehicles and assisted Bicycles" held 18. August, will give a interesting overview and time for discussions.

Contact: Future Bike CH, Spitzackerstrasse 9, CH-4410 Liestal, Switzerland Email [info@futurebike.ch](mailto:info@futurebike.ch), Fax (work!) +41 33 228 30 39 or on the web: [www.futurebike.ch](http://www.futurebike.ch) □



LEFT: '99 Rans seat

The Ultimate Adventure Travel Accessory...  
That Might Just Be A Y2K Survival Tool.

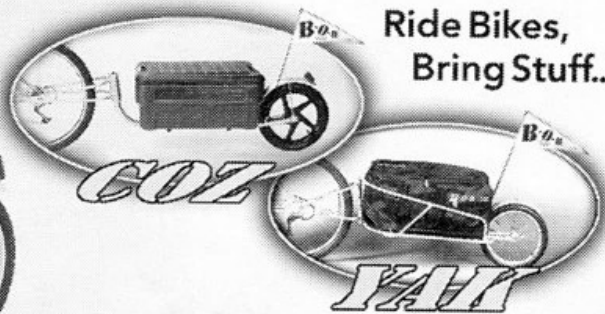


(800)893-2447

**B-O-B** 2008

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

Ride Bikes,  
Bring Stuff...



Get the Vapor Now!

Fast!  
Light!

The Prince formally  
known as Ed has one.

**FOOLS  
CROW  
CYCLES**

1046 Commercial Dr.  
Tallahassee Fl. 32310

850 224-4767

[www.foolscrow.com](http://www.foolscrow.com)  
EMAIL: [edde@tfn.net](mailto:edde@tfn.net)

Organic Engines

Check for weekly web specials



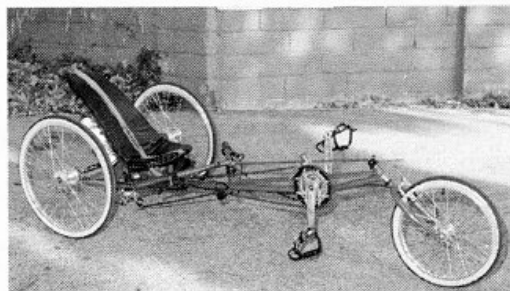
# Recumbent Rumors

**HUFFY/REBIKE—Chapter 2:** A letter was forwarded to us from a dealer which states that, "after a significant investment in 1997 and 1998, I regret to report sales have not met our expectations. Effective immediately, Huffly will sell the ReBike models through only one retailer. Therefore, Huffly will not be accepting any other orders for the ReBike models," signed William A. Smith, VP Marketing. We have not "officially" heard from ReBike since they called us to express their discontent over ReBike not being listed in the '98 Touring Recumbent Primer for *Adventure Cycling*. I am sure ReBike would love to hear from all of you transcontinental tourists riding ReBikes. **ATPVISION**—has reintroduced the 16" front wheel equipped R40 SWB by popular demand. This is the original R40 configuration and works great for shorter riders. **WHAT IF Angletech's** Kelvin Clark invited **Mark Colliton** to help design a new lightweight high performance SWB recumbent dream bike and then had one of the best bike builders in North America, Mark Nobilette, build it of the finest

tubes, parts and even a new state-of-the-art full sling/mesh recumbent seat. Well, this bike might turn up at the CABDA consumer show in Chicago wearing the moniker MC<sup>2</sup> (does this stand for Mark Colliton<sup>2</sup>?). Mark, friend of RCN for years (covers and scans) is a bike designer *WITHOUT* a company. Mark co-designed the Rans V-Rex. Mark flew to Hays and convinced Rans to build a SWB based on the Rans Stratus frame tube kit. The rest is history. **FLAT TIRES WITH PRIMO COMETS**...if you have been having more than your share of flat tires on '98 or '99 model bikes, we suggest you check out your tire tubes. The "Kenda" tubes seem to have problems (be defective?) and produce punctures at the tube seams (near the stem). We have seen it in 349mm and 406mm tubes from Vision and Rans recumbents. The easy fix is to find "Cheng Shin" tubes in these sizes and your flat tire woes will disappear. **LIGHTNING**—We have missed them and welcome them back. Watch for an **R84** and **Thunderbolt** tests upcoming. ☐

## S & B Recumbent

The Most Affordable Recumbent bikes and trikes



The 1999 "Speedster!"

### NEW FOR 1999

- ✓ Shimano Components
- ✓ Above-Seat Steering option
- ✓ Two trike models
- ✓ A Tandem
- ✓ An updated SWB design

Tel. 310-608-0008 or  
310-762-2243

Now ~~Soon to be~~

The Midwest's Leading Recumbent Shop

## The Bike Rack

Lots of bikes in stock and ready to ride

Rans • BikeE • Linear • Vision • Trice • Easy Racers

Comfort Cycle • Home of Creative Mobility

Mobility Solution Specialists: Hand Powered Bikes • Wheel

Chairs • Trikes Custom fitting is our specialty

We Ship World Wide

# 800.711.BIKE

Campton Hill Rd. & Rt. 64 St. Charles, Illinois 60175

Sales • Service • Rentals

## 1999 EVENTS CALENDAR

### ▲ MICHIGAN RECUMBENT RALLY

May 15, 1999—Michigan. For more information: SASE to Bob Krzewinski Tel. 734-487-9058, BobMich@compserve.com or www.lmb.org/wolbents.

### ▲ WHIRL BIG RIDE

May 15-16, 1999—Washington, DC

### ▲ FLIRTS SANIBEL TANDEM (and/or recumbent) WEEKEND

May 14-16, 1999—Sanibel Island, Florida. Contact: Tomand Kathy Provenzano, FLIRTS, Tel. 941-267-8641 or email: tprovenz@peganet.com.

### ▲ RIDE TO HPV PARADE

June 5, 1999—Harrisburg, OR  
Ride from the Gazebo to Eugene, OR to participate in the HPV Parade and return. Dale Hudson (541) 995-8133 Email: dalsuz@aol.com

### ▲ MIDWEST RECUMBENT RALLY

June 5-6, 1999—Stevens Point, Wisconsin. Hostel Shoppe Tel. 715-341-7414.

### ▲ MIDWEST RECUMBENT ROUND UP

June 12-13, 1999—Milwaukee, Wisconsin. Wheel & Sprocket. Recumbent demo rides, FREE food, and rides both days. 1-800-362-4537.

### ▲ MICHIGAN HPV RALLY

June 5, 1999—Waterford Hill, relaxed racing on a closed course. SASE for flyer. Wally Kiehler, 1027 Hawthorne, Grosse Pt. Woods, MI 48236, Kiehler@juno.com, www.lmb.org/mhpva.

### ▲ SAGINAW VALLEY CHALLENGE

June 6, 1999—Michigan. SASE to Bruce Isotalo, 308 Ardussi, Saginaw, MI 48602, Tel. 517/497-9226, ahtech@saginaw-city.k12.mi.us or www.lmb.org/mhpva.

### ▲ CRATERS OF THE MOON RIDE

June 5-6, 1999—Sun Valley, Idaho. Contact Bob at the True Wheel 208-788-5433.

### ▲ NIAGARA RECUMBENT RALLY

June 26-27, 1999  
Join HPVSO (Ontario rider group), the Western New York Group, and Rochester Area Recumbent Enthusiasts (RARE) for a weekend of 'bent fun. Contact: Roy Bird, birdy@bconnex.net or www.hpv.on.ca/

### ▲ SLUMGULLIAN COLORADO TOUR

June 25-28, 1999—Gunnison, Colorado. Angletech, Tel. 719-687-7475.

### ▲ 2nd Annual The Great Family Bike ride

August 5 to 16, 1999  
500 miles unsupported in 10 days. Possible bike/equipment loan/rent/buy. Seeking sponsorships. Shel bikewalla@yahoo.com

## DIMENSION EDGE



**ENGINE KITS FOR YOUR RECUMBENT. STREET LEGAL!!**  
We make power engine kits to fit your recumbent, upright or folding bike.  
Ask about our kit to fit your recumbent!

Call Today 1-800-652-8495

See us on the web: www.bikemotor.com

# The Greenspeed GTS

by Zach Kaplan

zakaplan@earthlink.net

**M**y interest in tadpole trikes first began in 1983 when my father gave me a copy of a December 1983 *Scientific American* article on HPVs. The fully faired Vector racing tricycle of that time period was prominently featured in this article and I was immediately attracted to its shape and configuration. The sprint speeds listed for it were higher than the legal highway speed limits of the time. I heard the Vector was going into production and wanted one for my first car. Visions of cruising down the motorway and pulling up to the high school to the applause of my classmates went through my head.

In reality, the efficiency and extreme aerodynamic shape of the Vector made the traditional heavy, unaerodynamic piston engine car seem archaic and unnecessary. After some extensive daydreaming in class about riding the Vector I found out it was not a practical vehicle for the road due to its ultra low ground clearance, a very limited turning circle and limited cornering abilities. That beautiful and extensive clear canopy would turn it into a greenhouse in the sun and make it difficult to impossible to see the road ahead when riding in the rain or into the sun. Furthermore, I found out the impressive sprint times were achieved using strong athletes, so maintaining the minimum motorway speed limit for a sustained period would not be possible for an average rider such as myself.

When I bought my first recumbent in 1992, I glanced over the trikes as they were perceived as being too heavy, too wide, too low and in general too slow and awkward. It wasn't until I got into fully faired recumbent bicycles in 1994 that I started to become more interested in trikes. I found the greatest disadvantage of the fully faired bikes was crosswind sensitivity which resulted in dangerous handling and occasionally getting blown off the road. With the increased speeds of fully faired bikes, I also found myself falling down more due to loss of traction as a result of sometimes unseen sand, mud or gravel on the roads. Then I had some crashes due to parts of the bike such as a fairing or mudguard getting lodged in the front wheel. I realized that I needed to get a tricycle as my primary transportation vehicle in 1997 when the front tire of my Lightning F-40 blew out at 60km/h (37.2 mph), resulting in a long skid down the road, a totaled fairing and a visit to the emergency room for some stitches as a result of neglecting to wear my elbow pads. As someone who uses HPVs for all his transportation, I needed something with greater safety and reliability than a bicycle.

I was aware of only two fully faired production trikes, the refined Leitra from Denmark and the newer Flevo Alleweder from the Netherlands. Both seem best suited to flat terrain due to their weights and the Leitra has a lot of frontal area, though it offers excellent weather protection with everything (including the rider's head) enclosed. I live in a very hilly area and in order to get to or from town, I must negotiate a twisty mountain road with 190 meters (630 feet) of climbing in each direction. So I need a fairly light tricycle which corners well.

## ■ THE TRIKE EXPERT

Ian Sims, the designer of the Greenspeed tricycles from Australia has been active on the HPV List at [www.ihpva.org](http://www.ihpva.org). He had mentioned that a full fairing was in development for the Greenspeed. I found him very approachable via email, so over the course of nearly a year I had many discussions with him about what a practical tricycle can be and what mine would be. I appreciated the fact Ian is also car free and designs his tricycles for practicality, durability and high performance in real world conditions. I was initially going to get a Greenspeed with full suspension and add the full fairing later when it became available. I was pretty much a believer in the need for full suspension after doing a good bit of riding on a full suspension recumbent bicycle and experi-

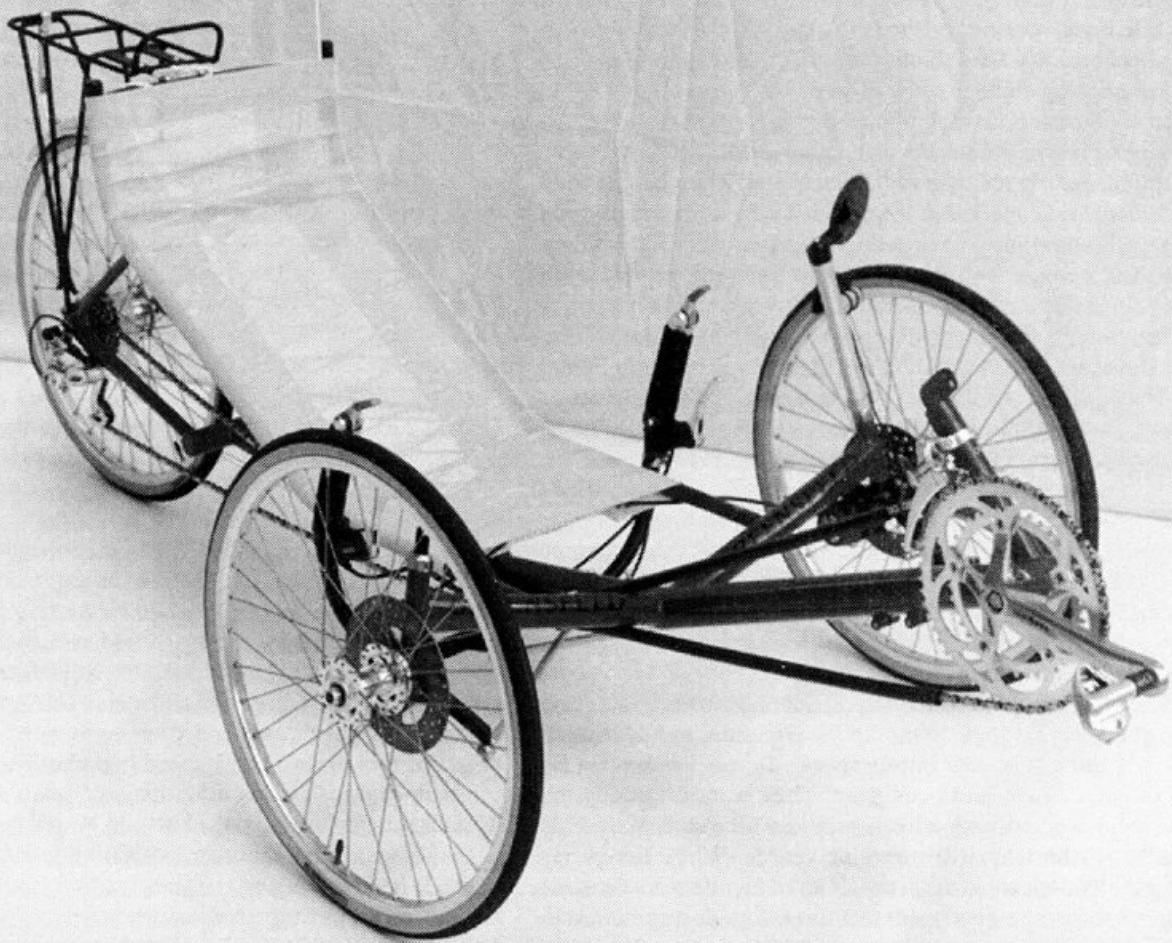
encing a rough ride on a Greenspeed GTR with skinny tires in 1997. Ian thought the suspension wouldn't be worth the extra weight and complexity on an unfaired trike but could be useful at the speeds a fully faired trike would go, particularly on rough roads on which we have many in this area.

While some prototype full suspension Greenspeeds had been built and sold, it appeared the suspension designs still needed to be perfected and their weight reduced. In early 1998, after waiting for a next generation full suspension Greenspeed for several months, I decided to change the order to a standard, well proven unsuspended production model rather than a new, unproven prototype. Greenspeed was experiencing a tremendous increase in sales which was slowing down the suspension development, and I was getting anxious to get on three wheels as we were experiencing one of the wettest winters ever.

## ■ GREENSPEED MODELS

In terms of production Greenspeed framesets the choice was between the GTR Touring model reviewed in RCN#30 or the GTS Sports Touring model. Given my terrain conditions and desire not to be much slower than a bicycle, the choice was easy. I went for the GTS. The GTS frameset has thinner wall, lighter frame tubes, a 10" seat bottom height, and a seat back angle of 30 degrees from horizontal. The GTR frameset has a heavier frame, 12" seat bottom height, higher ground clearance and a seat back angle of 35 or 40 degrees more upright custom seatbacks are available on either model. The GTS complete trike as configured by Greenspeed generally has narrower tires and rims and narrower range gearing. Not having done much riding on recumbents with very laid back seats, I had some uncertainty about neck comfort, but Ian convinced me this wouldn't be a problem for someone of my build. Ian told me that of all his production trikes, the GTS is his personal favorite. From Ian's extensive postings to the HPV internet list ([www.ihpva.org](http://www.ihpva.org)) it had become clear that on a trike, lower is better in terms of safety and cornering power. So even if there would be some initial discomfort with the 30 degree seat back, the increased cornering power and reduced tendency to lift wheels in corners combined with better aerodynamics and lighter weight attracted me to the GTS. I did go with wider range gearing and the relatively wide Tioga Comp Pool 47-406 tires and Araya MP-22 rims used on the GTR to better cope with the steep hills and rough roads in my area.

Greenspeed trikes are made to order, and part of the order form includes rider height, inseam, x-seam, seated shoulder height, shoulder width, seated arm length, hip width and weight. This way the frame length and seat size can be fine tuned to the rider as can the diameter and wall thicknesses of the frame tubes. I selected a main tube of 1.75" x 0.035" as that was Ian's suggestion and my feeling based on various monotube bikes I've had. I could have saved more weight by using a 1.5" x 0.035" tube, but that might prove too flexy, and I wanted a good overall compromise for my first trike. The trikes normally come with braze-ons for a headlight, taillight and one water bottle cage in front of the seat. I ordered pump braze-ons and an additional set of bottle cage braze-ons out on the boom for perhaps mounting a headlight battery. Now that I look back on it, I would have also ordered the optional additional set of bottle cage braze-ons beneath the seat on the non-drive side. I was particularly impressed with the headlight braze-on. It consists of a small vertical flat plate on the front derailleur post or bottom bracket shell. It is very minimalistic and lightweight yet effective. Traditional European dynamo powered headlamps bolt right on to a hole in the plate and Ian also offers an adaptor to accommodate a higher power handlebar clamp equipped headlight.



*The high performance Greenspeed GTS—Photo courtesy of Greenspeed*

## ■ TRIKE DRIVETRAINS

Ian Sims is fond of the Sachs 3x7 hubs and Schlumpf Mountain Drives and in my discussions with him I mentioned how I might experiment with a Mountain Drive at some point. I was initially planning on setting up the GTS with a 30/60 crankset and a Sachs 3x7 hub with an 11-30 Shimano IG-50 cassette. Much to my surprise, the frameset arrived without a front derailleur post or braze-ons for front derailleur cable housings. The bottom bracket shell was machined for taking a Schlumpf Mountain Drive. Ian had taken my discussing potentially using a Mountain Drive to mean I wanted a frameset configured to be used only with a Mountain Drive. After a quick email with Ian (he tends to reply within a day to emails) Ian offered to send me another bottom bracket slider with a front derailleur tube. I considered taking him up on this, but really didn't want to cable-tie the front derailleur cable housing to the boom, so I decided it was about time I delved into the world of internally geared cranksets. I began researching the Mountain Drive ([www.schlumpf.ch](http://www.schlumpf.ch)), exchanging emails with Florian Schlumpf and planning out my gearing all over again. I eventually arrived at ordering a Type I Mountain Drive which has a 1:1 direct drive and 2.5:1 underdrive. Waiting for a Mountain Drive to come from Switzerland during the busy summer season delayed getting the GTS on the road until September 1998. We could have set it up temporarily with a single chainring crank or even a double crank shifted by using the chain tube, but I wanted to do things right the first time and had plenty of other projects going on—plus good weather, thus less urgency for a trike.

We ended up combining the Type I Mountain Drive with a 60 tooth chainring, a Sachs 3x7 hub and an 11-28 Shimano IG-50 cassette. This gives a very wide gearing range of 12.27 to 144.87 gear inches. The top gear proved to be unnecessarily high for an unfaired trike but should prove useful once the full fairing is added. The low gear is very reasonable and allows me to pedal at a comfortable cadence up steep climbs with heavy loads. One nice thing about trikes is that you can pedal up a

climb as slow as you want without having to worry about balance. Eliminating the need to spend energy on keeping the vehicle balanced may offset the tricycle's disadvantage of greater weight when moving slowly up steep climbs. If one gets tired out on the climb, one can soft pedal or even come to a stop without having to worry about balance or getting started again. I find the Mountain Drive easy to use. My Bebop pedals have enough float to allow my heels to press the shift buttons located where the crank bolt dust caps would be on traditional cranks. The main downsides of the Mountain Drive are high cost and some friction losses from the internal gears. While the Mountain Drive is heavy compared with a conventional triple crank and bottom bracket, Ian Sims pointed out that a trike configured to use a Mountain Drive instead of a triple crank is actually lighter due to not having a front derailleur along with the front derailleur tube, shifter, cable, cable housing and cable housing braze-ons. The Type I Mountain Drive provides a wider range than any traditional crankset shifted by any front derailleur currently in production. One initial drawback I found of not having a front derailleur was that the chain would occasionally drop off the chainring on a rough road, particularly when going around a rough corner. As I wanted to avoid going to expensive and heavy chainring guard rings, I tied the upper chain tube to the forward bottle cage. This cut down on the incidence of chain dropping but much to my annoyance, the chain still dropped occasionally, especially on one rough corner. When the chain fell off on this corner I'd have to pull over on a shoulderless road just beyond a blind hairpin turn and get my hands dirty while putting the chain back on. I think I've cured the chain dropping problem by going to a more rigid forward bottle cage. Ian is working on some form of clamp-on chain tube guide to take care of this problem without needing to use a bottle cage to stabilize the chain tube.

## ■ BRAKE POLITICS

One Greenspeed rider told me that if he was going to order another trike

he'd pay extra for the optional disk brakes. He found the standard Sachs drum brakes to be rather weak and prone to fade on long downhills. Since I have to deal with many descents which involve doing heavy braking for corners it didn't take much thought to decide on going for the disk brakes. While I was waiting for the GTS, the Sachs disk brakes Ian had been using became very hard to obtain. I wanted to avoid using the Sachs disk brakes anyway since they were a fairly old and heavy design compared to the latest disk brakes available for mountain bikes. We discussed using Hope or Hayes brakes instead. Hope didn't seem interested in working with Ian, but Hayes was very responsive. They had just entered the bicycle disk brake market in 1998 with a very light weight fully hydraulic design with dual piston retracting drag free pads. While their bicycle disk brakes weren't well proven at the time, Hayes had been making motorcycle and industrial brakes for many years and it seemed like a good design which could take a lot of heat without dragging. Ian obtained some Hayes disk brakes, designed kingpins for them, and did some testing. They proved to be much more powerful than the Sachs disks he had been using and allowed the rear wheel to be lifted using one finger on each lever. So my GTS frameset ended up being one of the first two production Greenspeeds with Hayes disk brakes. Ian discovered the Hayes brake rotors have the same bolt pattern as the Sachs rotors, so rather than using the more expensive Phil Wood single side mounted hubs designed for Hayes brakes, he used the modified Sachs Neos disk brake hubs he had been using on the Sachs disk equipped trikes.

The Hayes disk brakes turned out to be an excellent choice. The braking power is incredible. I can come up to corners very fast and do all the braking at the last moment. While I can lift the rear wheel whenever I want, it only lifts when I want it to due to the excellent modulation of the Hayes brakes. I think it is very impressive that these brakes can lift the rear wheel of such a low, laid back trike. They were originally designed for full size mountain bike wheels and like all hub brakes, they are more effective as the wheel diameter decreases. While the Hayes brakes don't create any noticeable drag, the sintered metal rotors do make a slight ringing noise as they gently contact the rotors during hard cornering. This is due to a small amount of play in the nonadjustable cartridge bearings in the hubs. Too bad someone like Shimano doesn't make disk brake hubs with adjustable angular contact bearings. While a system like Sachs or Hope wouldn't make this noise due to their use of organic compound pads, the sintered metal pads last longer, particularly in wet abrasive conditions, and they can take high heat loadings better. A previous fully faired bike I had burned through organic disk brake pads in about ten days of rain riding, while the sintered metal pads lasted several months in similar conditions. The sintered metal pads of the Hayes brakes also generate a loud squealing noise when braking hard in the rain, though they are quiet under normal braking rain or dry.

#### ■ VERY LAID BACK ERGONOMICS

The ergonomics of the GTS did take some getting used to. Some would call this laid back seat and high bottom bracket position extreme. It is much closer to lying down than the typical American recumbent or even the typical trike. My neck did feel uncomfortable on the first several rides but I soon acclimated. I put a rack top bag on top of the optional

custom tubular CroMo rear rack and occasionally I rest my head on this bag when doing a steep climb. The mesh Greenspeed seat is fairly comfortable in that it puts most of the rider's weight on his back rather than the working muscles. However, the seat bottom is flat and there is no lumbar support curve in the seat frame, unlike the other mesh seats I generally ride which have seat bottoms which slope up towards the front and lumbar curves. The first time I did an 80 km (50 mile) ride on the GTS I had some pain at the base of my spine, possibly as a result of this lack of support. Since making the GTS my primary transportation vehicle, I've acclimated to the shape of the seat and haven't had any more of this type of discomfort. The seat frame is an integral part of the trike frame which makes for a stronger, more rigid, lighter frame. This also means the seat back angle cannot be adjusted, so someone buying a Greenspeed needs to give serious consideration to the type of riding they plan on doing and their physiology. I very much like the use of bright yellow mesh on the seat. I wish all recumbents came with high visibility seat covers. The seat mesh is laced together using elastic cord which is said to reduce road shock transmitted to the rider, though it seems it could also absorb some power.

#### ■ CONTROLS

I find the side stick steering hand position very comfortable and natural. The handlebars aren't adjustable for angle or fore-aft position, though, and I think my preference would be for a slightly farther forward hand position for better aerodynamics and even more comfort. The factory set up Greenspeeds have Shimano bar-end shifters which work very well on side stick steering. In part because this GTS has a Mountain Drive and in part to save weight, we ended up using a set of Sachs Power Grip Plus twist shifters to shift the 3-speed hub and 7-speed cassette. This seemed more elegant than using a Shimano bar-end shifter on the right side and a Sachs thumb shifter on the left side. A side benefit of these twist shifters is they give me another arm position which puts my hands farther forward. When cruising on the flats I simply rest my forearms on top of the fixed hand grips of the twist shifters with my hands draped forward in a very relaxed position. This forearm steering works out very well as long as the road isn't twisty. Ian told me he doesn't put the handlebars farther forward to keep the hands from fouling the front wheels on sharp turns.

#### ■ PRACTICAL SYSTEMS

Since this GTS is a practical vehicle for all weather transportation I went for the optional mudguards on all three wheels. These effectively keep most of the dirty road water off of the trike and rider. I wasn't pleased with the initial front mudguard mounts which threaded onto the kingpin bolts. These mounts were quite heavy with the whole mudguard kit weighing over 1000 grams and they only supported each mudguard in two places. The mounting method also required wheel removing, which is a hassle with disk brakes as the caliper or rotor need to be unbolted before the wheel can be removed. Greenspeed is about the most responsive HPV manufacturer I know of. Ian's son designed and built some new front mudguard mounts which are lighter, support each mudguard at three points, and install and remove quickly with no need for wheel removal. I had the new prototype mudguard mounts within six weeks of my initial



PO Box 1658  
400 North Main Street  
Hailey, Idaho 83333  
Tel. 208-788-5433 • 1-800-607-7915  
Fax • 208-788-6426  
[www.webpak.net/~jstoke/bike](http://www.webpak.net/~jstoke/bike)

# The True Wheel!

## Has Your New Recumbent Bicycle In Stock

- ✓ Easy Racers
- ✓ Rans
- ✓ Vision
- ✓ Haluzak
- ✓ We deliver anywhere
- ✓ Visa • Discover • Mastercard



The new Vision R32

complaint—not bad for a manufacturer located halfway around the world. Ian said it doesn't rain much in his area and he doesn't use front mudguards so hadn't given the mounts much attention. He let me test out the prototype mounts since I do a lot of rain riding. So far I am very pleased with them. The whole mudguard kit now weighs 760 grams. The main change I would make is to use a flexible mudflap on the rear of the front mudguards rather than extend the rear edge of the mudguards down close to the ground. This would reduce the chances of cracking a mudguard on a road hazard. The front mudguards could also be narrower to reduce frontal area as they are presently wider than the Comp Pool tires, but this might reduce their effectiveness in crosswind conditions. I added 3M reflective stripes to the rear of all the mudguards to increase visibility.

Using the optional headlight adaptor, I mounted a CatEye Stadium light. This 21 watt metal halide headlight sits just above the bottom bracket shell and bathes the entire road ahead for some distance with a brilliant bluish-white light. The Stadium light is brighter than most car headlamps and I consider it an important safety feature for riding at reasonable speeds at night on mountain roads. It provides some early warning of the presence of wild animals which are about to leap out into the road. The fur of deer in particular really glows in this light. Cracks, potholes and gravel also show up nicely, not that it is that important to notice those hazards when you have three wheels keeping you upright. Conventional high powered halogen bicycle headlights are like riding by yellowish candle light in comparison. I was pleased to note Ian Sims also uses a Stadium light. I've been using one since 1996 and thanks to the help of an electronics knowledgeable friend my Stadium light now sports an 8 watt low beam setting for conserving battery power on climbs and at lower speeds. This combined with a custom 12V 5.0Ah NiCad battery pack allows far longer run times than the stock Stadium light with its single 21 watt setting and 2.5Ah battery. Also running off the main headlight battery is an extremely bright NiteRider taillight with 16 LEDs and an even brighter omnidirectional Lightman xenon strobe. With all these lights and reflectors I feel safer at night than during the day, though the GTS gets plenty of respect and passing room during the day too—far more than any recumbent or upright bikes I've ridden. The width gives it an appearance of being a substantial vehicle and the unusual looks make many drivers slow down when passing. I've found that the lower the HPV, the more passing room I get. This could be in part because drivers like to look at odd HPVs as they pass and the lower it is, the farther they have to pull out to see it in their side window while



See what Zach Kaplan has to put up with every day. A day in the life at Muir Beach, California  
Photo by Zach Kaplan

passing. I of course, ride the GTS like a vehicle, which means not passing queues of cars at traffic lights, riding predictably, and taking the entire lane when there isn't enough room for a car and trike to safely coexist in the same lane. I ride bikes this way, too, so the trike really isn't any more difficult to ride in traffic. In fact in many ways it's easier since your feet are continuously engaged to the pedals. It is easy to burn rubber accelerating from a stop on the GTS.

#### ■ GTS HANDLING

In terms of tricycle cornering ability the GTS is in a class of its own. I find I can take corners on it much faster and with greater confidence than with any other trike I've ridden, including the GTR. The low laid back seat and wide track give it exceptional stability in turns. Unlike with most trikes, it is very hard to lift the inside wheel when cornering on the GTS. Going through the corners one can sit back and enjoy the sports-car like feel; leaning into the turns is optional. When getting onto other trikes after riding the GTS, I have to be careful I don't unintentionally get the inside wheel off the road in corners. Some trike riders like going through corners on two wheels, but I prefer having all the wheels on the road. Remember, I use this thing as a dependable vehicle to get me and my cargo from point A to point B in a comfortable and efficient manner—not as a toy for doing stunts. That said, I do derive a deep sense of pleasure from getting around turns at high speed with minimal use of the brakes and all wheels on the road. When really taking the corners all out,

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

The recumbent bicycle and hpv  
information center on the internet.

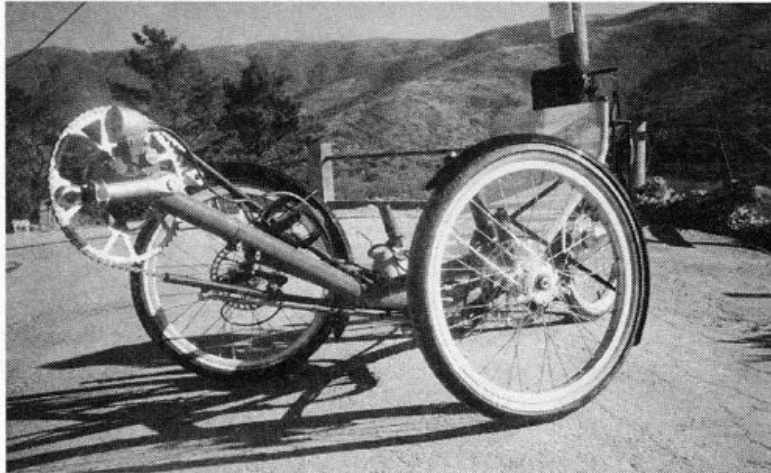
630,000 hits in December

## ZACH KAPLAN CYCLES

Maximum Performance Recumbents for Transportation  
Meticulous Service Unequaled Custom Modifications

FAIRINGS SUSPENSION LIGHTING SYSTEMS  
WIDE-RANGE GEARING AND LUBE-INJECTION CONVERSIONS  
MANY BRANDS AVAILABLE INCLUDING IMPORTS

Telephone: 415-381-5723, E-mail: [zakaplan@earthlink.net](mailto:zakaplan@earthlink.net)  
235 Pacific Way, Box 214 Muir Beach, CA 94965 USA  
Serving the SF Bay Area and mail order



Zach's Greenspeed GTS—Zach Kaplan

I do lean into them to keep the inside wheel in contact with the road. When using this technique the tires start to slide out before the inside wheel lifts. Leaning over with your ear close to the road hearing the tire start to slide is an awesome experience. The GTS is very predictable at its limits due in part to its excellent torsional rigidity and geometry. The high traction, low rolling resistance Tioga Comp Pool tires help out with the cornering, too. I've found when it does slide out—such as when encountering some sand or gravel in a corner, it only slides slightly and still feels very controllable. Those are the conditions which would put a two wheeled recumbent down in a hurry. I did some braking and slalom tests on an ice covered street one morning and found the GTS very stable and controllable. I could hardly walk on the icy surface, let alone keep a bicycle upright, particularly a recumbent bicycle where one has less reaction time and can't use body English as well to compensate for sliding wheels.

So the GTS excels when road conditions are less than ideal. The stability and lack of a need for balance help prevent out of control situations and falls when encountering common road hazards such as sand, gravel, mud, wet utility covers, ice and wet stripes. These are the sorts of hazards that are often hard to see when riding at night, in the rain and or with a front fairing. All but one of my falls from a bicycle wouldn't have happened had I been riding a trike.

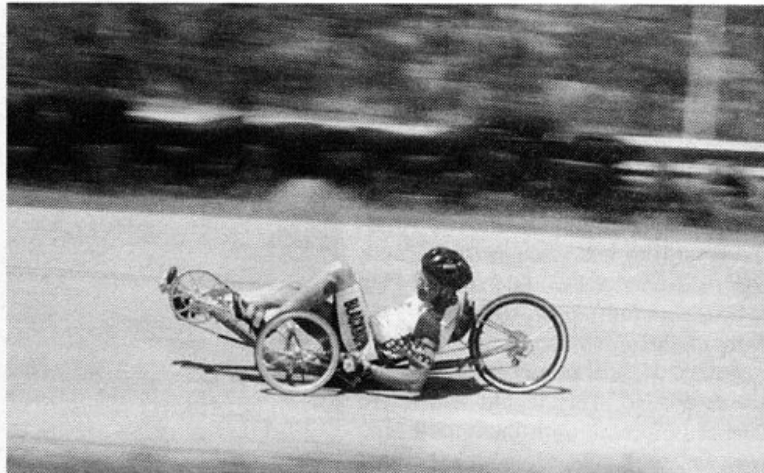
In those rare situations when conditions are ideal such as descending a smooth road on a sunny day, I find I am unable to take corners as fast on the GTS as on a bicycle. The non-leaning wheel tricycle configuration scrubs off a lot of speed in the corners. The GTS is fast by unfaired tricycle standards but not by bicycle standards. All the extra hardware and front wheels hanging out in the wind really increase aerodynamic drag. The GTS is much slower on level ground than a low racer bicycle of similar seat height and seat angle. It does still end up being faster than a typical American medium seat height SWB with more upright seat, though it isn't as fast as a European style recumbent with laid back seat

#### THUMBS UP

- ▲ Elegant design
- ▲ Extremely stable handling
- ▲ Excellent cornering ability
- ▲ High quality build
- ▲ Designed for practicality
- ▲ Lightweight by trike standards
- ▲ Aerodynamic by unfaired trike standards
- ▲ Seat is integral to the frame for strength, rigidity and low weight.

#### THUMBS DOWN

- ▼ Harsh ride when Comp Pool tires are inflated to their rated psi
- ▼ Seat back angle is fixed (integral seat/frame)
- ▼ 30° seat back angle may cause neck discomfort for some
- ▼ Low ground clearance
- ▼ Internal gears have friction losses and add weight
- ▼ Doesn't fold for transport (though an S & S version is available for extra cost and added weight).



Scott Setford races a Greenspeed at Canberra

and high bottom bracket such as the Speed Ross I ride. While the GTS is light for a trike at 36 pounds including fat tires, wide rims, rear rack and 3x7 hub, it is heavy by bike standards. This results in slightly slower climbing but not dramatically so. When the rider-vehicle combination are looked at as a whole, the additional weight of the GTS over a typical SWB isn't much percentage wise. I think the high bottom bracket to seat height relationship and the losses from the internal gears slow the GTS down more on climbs than does its greater weight. We could have easily set this GTS up to be much lighter, but then it would be less practical, less reliable, less durable and less safe, plus it wouldn't have that super wide gearing range.

Overall I am very impressed with the design and quality of the GTS. It has become my primary transportation vehicle and I seldom ride bikes anymore though for a fast ride in ideal conditions I'd still take a bike. I look forward to the availability of the full fairing for the GTS to make it into a complete high performance practical transportation vehicle.

#### ■ ROAD TESTER RATING/Zach Kaplan: "A" <sup>1</sup>

#### ■ ACCESS

##### Greenspeed

Address: 69 Mountain Gate Drive  
 Ferntree Gully, Victoria, Australia 3156  
 Tel. +61 3 9758 5541  
 greenshp@ozemail.com.au  
 www.greenspeed.com.au

1 Key: Grades range from F-A+. F Fail/the worst rating possible; D Worse than average; C Average/Good; B Very Good; A Excellent/Exceptional.

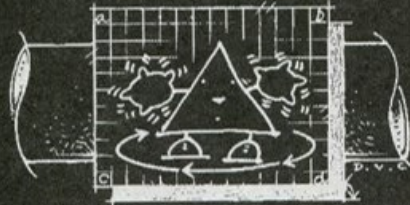
## Greenspeed GTS

TYPE.....	Two wheel in front trike (USS)
WHEELBASE.....	42"
SEAT HEIGHT.....	10"
BOTTOM BRACKET HEIGHT.....	16.5"
WEIGHT.....	35 pounds
FRAME.....	MIG 4130 CroMo
STEM/BARS.....	4130 CroMo
SEAT.....	MIG CroMo frame sling mesh base/back
<b>COMPONENTS</b>	
CRANKSET.....	Sachs/Shimano 53/39
BOTTOM BRACKET.....	Shimano sealed
DERAILLEUR-REAR.....	Shimano 105
SHIFTERS.....	Shimano bar-end/42 speed
CASSETTE.....	Shimano 11-24
GEAR INCHES.....	23-128
WHEELS.....	451mm 20" (406mm is optional)
TIRES.....	IRC Roadlite EX
HUBS.....	Sachs VT drum front/3x7 rear
BRAKES.....	Sachs drums (disks optional)
WARRANTY.....	10 Years (frame)
COLORS.....	green, red, yellow/gold, blue + many more powdercoat
PRICE.....	\$5200 Sachs disks + \$900 + est. \$600 shipping/customs (AusD)

"BIKE TECHNOLOGY FROM A DIFFERENT **ANGLE**"



RANS / ANGLETECH ALTITUDE  
TREK / VISION / BIKEE / EZ RACERS  
QUADRAPED + TRI SPEEDER TRIKES



**"ANGLETECH"**

318 N. HIGHWAY 67  
WOODLAND PARK, CO  
80866-1893

**800 793-3038**

[WWW.ANGLETECHCYCLES.COM](http://WWW.ANGLETECHCYCLES.COM)



**The Next Step In The Evolutionary Cycle**

**Affordable Fun**



**BikeE CT 2.0**

**No Compromise**



**BikeE NX 5.0**

**Award Winning**



**BikeE AT 3.0**

**1-800-231-3136**

or

**[www.bikee.com](http://www.bikee.com)**



# The ICE TRICE

## A Trike from the UK

by Robert J. Bryant



**T**he Trice and I go way back. It was the first recumbent trike that I ever tested. I'll never forget that day in the Spring of 1990 at Portland Meadows. I had driven down to meet with new US importer of the time, Ken Trueba, and test the trike. In 1990 the Trice was around one thousand dollars—a bargain by today's standards. I can recall the wide open slalom course through the baron parking lot. This is true ecstasy for the trike enthusiast or wannabe. It is these kinds of test rides that sell a lot of trikes. Possibly it is the memories of one's first pedal car or better yet, a Big Wheel. The recumbent trike is the ultimate big boy pedal powered vehicle.

The Trice first caught my eye in Richard's *Bicycle Book*, by Richard Ballantine. Author Ballantine loves trikes, and owns an early Windcheetah which he writes passionately about. This has set the recumbent fires burning in many, many new enthusiasts.

### ■ TRICE HISTORY

Peter Ross has been involved with recumbent trikes perhaps longer than anyone besides Mike Burrows (Windcheetah fame). Peter was inspired to build a pedal powered vehicle by the oil crisis of the late 1970's. Peter entered the first Trice in the 1984 Hull HPV contest in Canada. In 1986, the first production Trice were unveiled with three 20" wheels and a square mainframe and a weight of 45 pounds. It became clear that the UK trike enthusiast wanted a Windcheetah-like trike, so in 1990, a newer Trice was introduced with a 700c rear wheel.

### ■ ECO TRICE

It was at this time that Trice started to show up on US shores. The former US distributor, Ken Trueba, of Corvallis, Oregon sold quite a few, and attended bike shows, festivals and HPV Speed contests between 1990-1994. The Trice was built under license here in 1993-1995. The Trice became well known. A fiberglass body designed for Electrathon racing by Mark Murphy in Eugene, Oregon was fitted to the Trice and a few of these were sold. It is easy to spot this era of the Trice as it had a fiberglass shell seat. Sling/mesh seats were offered in the USA just prior to the ceasing of US Trice production in 1995.

In 1995, a new version of the tricycle had been introduced in the UK. We designated this the Euro Trice. It had an upgraded frame geometry and a mesh seat. In the '95 RCN Buyers' Guide both the US and Euro Trice were listed. Shortly after this time, Eco lost their license to build Trice. An Eco trike prototype was built to a non-Trice design, though very few were sold. The US Trice were inexpensive and can be great bargains when they come up on the used market.

### ■ '98 TRICE

The new trike model is by far the best Trice we've ever tested. This is a long awaited replacement for our '96 prototype "Euro Trice" and all systems have been improved. Peter Ross' Crystal mission has always been to build a trike with off-the-shelf user-friendly parts. You will find very few customized parts on the Trice, fewer than on most any other trike. The Trice is repairable by most anyone anywhere. It is low-tech tricycling at its finest. Given our retro tendencies here at RCN, we like this direction.

### ■ FRAME

The new Trice frame has been stiffened where needed, as well as sectioned (frame breaks down into small pieces). The frame consists of a brazed welded Mannesmann cold-drawn hi-tensile steel mainframe, Columbus CroMo stays and an aluminum boom. The frame separates into the following sections: 1. Mainframe/crossmember; 2. Rear triangle; 3. Pedal boom.

This trike breaks down smaller than any other trike we've ever seen. Unfortunately, the new owner must do everything in assembly unless other arrangements are made. The Prince formerly known as Ed (Deaton) of Fools Crow was sympathetic to this rant. Ed has been known to deliver Trice and regularly ships fully assembled via truck. I highly recommend that RCN readers *DO NOT* accept their trike disassembled in a little box—even if it means spending a few more bucks. Trikes NEED to be set-up by people who know what they are doing. And at \$3000+ don't scrimp on assembly. I've set up many over the last ten years, and trike set up from a frame is taboo#1 here at RCN.

The Trice has redefined how a trike frame can be built. The rear triangle inserts into the mainframe with the equivalent of boom bolts. The pedal boom inserts into the mainframe as well, though a plastic lining is in between the aluminum pedal boom and mainframe. We were actually concerned about possible slippage from both ends, the rear triangle being twisted in the mainframe or the plastic sleeve acting as a bearing and allowing the pedal boom to twist. We didn't experience either. Nevertheless, I'd rather have a one or two piece frame. The take-apart scenario is just too complex and time consuming, and customers get the idea that take-apart can be done easily.

The Trice uses custom kingpin/linkage assemblies that rotate in head tubes with headsets at either end of the crossmember. A typical MTB handlebar rotates in a headtube/headset underneath the seat. Custom bar ends hold the USS controls.

The fabrication quality of our '98 Trice was the best yet. The new company owners seem committed to making the Trice a contender. Ed Deaton of Fools Crow has seen the new brazed '99 Trice frames and says that they are even better. We love yellow paint on recumbents, so the Trice won us over immediately. However, UK powdercoat is just not as good as American powdercoat. New paint options are available.

### ■ THE DESIGN

During our '93 Trice test, the most noticeable aspect of the Trice was its unique ability to tail wheelie. The rider could hit the front brakes, slightly rotate his weight forward and the rear wheel would lift up and the nose would slam down—scratching the crankset and giving the rider an adrenaline rush. As in true-trike form, the first thing I tested for was this. I am happy to report that the center of gravity has been improved by a carefully moving it rearward. In doing this, the seat is low and just barely clears the large 26" rear wheel and sharp edges of the optional rear-rack mounting brackets. I do believe that large rear wheel trikes have lighter rear-ends and their designers must work harder to keep the rear wheel on the ground. Peter Ross has done a good job paying attention to this problem.

### ■ ERGONOMICS

The Trice has that 'extreme' Euro riding position with a high bottom bracket and very laid back seat angle. My neck would not handle it very long as it always had to be cocked forward to see down the road. The natural position would be to have your neck rubbing against the rack mounts—which is definitely not comfortable. I blame my long torso and height, rather than the trike; however, if you are tall, or sensitive to ergonomic issues that I frequently write about, this may be an ergonomic red flag to you. Our Trice was easily as extreme as the 35° seat angle Greenspeed GTR.

After complaining about the extreme situation, Peter Ross airmailed an adapter that allows you to tilt the seat up and forward into a less extreme position. Unfortunately, this adapter made the seat rails rub up against the USS bar-ends and made the trike unrideable, so we removed the adapter and made due. Our primary issue with the Trice is





*Note Fat tires, euro-reclined seat, high BB and interesting neck rest (rack braces). This trike is a gorgeous shade of yellow*

the lack of an adjustable seat recline. This is expected in the USA these days. Even the entry level 'bents have it. The riding position of the '98 Trice is far more extreme than the old fiberglass seat trike. Interestingly, I was able to put a few miles on one of the last US built Eco Trice with the fiberglass seat. It had a fixed angle, though it was far more upright than its predecessor.

#### ■ SEAT

The Trice seat has a tough aluminum frame laced with excellent quality (and soft) Terylene mesh. The lacing of the seat can be annoying and there is an ongoing tightening process, though it seems to work well. The seat back is 18" high (and lower than the optional rack); the seat base is 10" deep and 14" wide. The mesh is soft and comfier than most and we have not seen this type on any other 'bents.

As with several sling/mesh seats we've tried, they feel small for my 6' tall body, long torso and all. This one I couldn't figure out as Peter Ross is tall as well. The seat has a well defined lumbar support and arches backward—too far back for me, thus tweaking my neck and forcing me to lower my chin towards my chest to look straight down the road. Some riders love this position, for me it's not good for very long. The cockpit is also very narrow. The bar-end USS controls are only 17.5" wide.

The seat is held to the mainframe with four Cateye plastic clamps. It only takes a few minutes to get the seat off. Not quick-release by any stretch, but it does indeed come off. I have never seen this type of clamp used to hold a seat on before, though these could easily be replaced by hose clamps that would be nearly invisible as they are under the seat.

#### ■ COMPONENTS

For a new, modern trike, the Trice has a mix of retro favorites and also what our choice would be for the ultimate trike. The shifters are Shimano bar-end Bar-Cons (the finest shifters ever made). They are near bullet-proof, have a friction option, index better than most, are quiet, refined, and you can shift fast. The chain runs through twin chain tubes and the drive side rolls under an idler, also improved over the last Trice. The

chain tubes are a wonderful addition to this drivetrain, however, they have a utilitarian industrial logo type that is visible on the gray tubes. We'd prefer basic black. The chain is a Sachs, another RCN favorite. The rear derailleur is a Shimano Nexave with a Megarange 11-34 cassette. Shifting was crisp, precise and fantastic as 8/24 speed systems go. Components vary by dealer as most arrive in the USA as framesets.

#### ■ BRAKES

The brakes are true to the British Trice heritage—Sturmey Archer drums—and they work great. Sturmey builds parts for serious bad weather commuters—and they build them to last. Peter Ross carefully adapts the parts to Trice use. Both drums connect to the right brake handle, so careful adjustment is required to keep an equal pull on the brakes. We don't think this works as well as the crisscross, individual levers of the Greenspeed/Dragonflyer system, but it was trouble free and adjustment is easy to do, yet can be difficult to perfect. We were happy to see a rear parking brake on the Trice. It is connected to the left brake handle, along with a parking brake lever to hold the brake on. This didn't work as well as previous Trice, though we love any and all parking brakes on trikes.

#### ■ OTHER STUFF

The Trice has really fat tires. Peter definitely has taken our fat tire rants quite literally. The front tires are another RCN favorite—the Tioga Mitsubishi Comp Pool. These are 90 psi 406mm 20" x 1.75" bald slicks. They are sticky and fast. Greenspeed's Ian Sims says they roll faster than any 406mm tire. The sort-of matching rear tire is a really fat 1.95 Tioga City slicker.

We have recently heard a rumor that the Comp Pool mold has broken and the cache of tires will dry up soon and there are no plans to make more. If you are a Comp Pool fan, stock up.

Peter Ross advises against the use of the Zipper fairing, as he says it doesn't do much. A lockable tail-cargo box is available and will haul a load of groceries in fine fashion. A nose cone and soft body can be also available options.

## ■ VERDICT

The Trice has had a roller coaster past. The original 1990 vintage were a bit on the tender side and updates did not come fast. The Trueba Eco Trice became a different trike—thus ended the USA built Trice. This test has been in the works for several years. We received the prototype for what we deemed the “Euro Trice” back in 1996. Peter Ross went through a series of changes, builders and delays...and more delays. Delivery of a production Trice took until 1998—missing our trike buyers guide by a few weeks. And in the six month period since the company was purchased and things have changed dramatically—for the better. Peter Ross is a great guy and true recumbent (and trike) advocate. This progression of the company will most likely be the best yet. The changes look very good.

The ICE Trice is a contender and one of the top recumbent trikes. After testing the Greenspeed GTR and Dragonflyer, I must say that I believe three 20” wheels are preferable for handling and weight distribution. For 1999 ICE offers a 3 x 20” trike. However, the Trice is the best of the full size rear wheel trikes we’ve tested—and there will always be customers who prefer a full size rear wheel.

The steering geometry is dialed and refined. The components on our test bike were exceptional (Nexave/bar-ends/Comp Pools). The only debatable item is the more extreme riding position. The seat back with no neck support backs up to the rear tire (and on our test trike, a rack), which was a bit odd. The riding position of our test Trice was more extreme than that of either a Greenspeed or Dragonflyer. It seems as though ICE has addressed some of our issues with ‘99 updates.

Sliding booms, boom bolts and chain adjustments are not my favorite aspect of trikes (or any recumbents), however, I realize that they are more necessary on a trike to ensure proper weight distribution and ergonomics (especially one-size frames). Having an integral seat and/or stiff seat and firmly fastening it to the frame is essential. Without these, the frame/seat integrity will be pushed to the limits. The Trice passes all of the above, though adjustments are not the easiest we’ve experienced.

One aspect of the Trice that we have never liked is that both front brake cables are connected to one brake lever. Besides taking more braking effort to pull this one handle, it seems to me that the steering geometry may not be AS refined as the Greenspeed where brakes are criss-crossed (right lever—left brake, left lever—right brake) and operate independently. Also, the Trice one-handle method requires a more careful brake adjustment to equalize the brake pressure to each of the two drum brakes. Newbies may also make the mistake of pulling the two levers equally and quickly find out that the second lever is the rear wheel parking brake (which if activated at high speed could throw the Trice into a spin). What we do like about Trice braking is that Peter Ross and ICE have always supplied parking brakes. Trikes tend to want to roll away if not tied down. Some manufacturers ignore this (seemingly wanting your trike to roll away) or supply ridiculous rubber bands or velcro attachments.

My last comment on trike braking is that I find drum brakes completely adequate. The risk of potential problems, squealing and service delays with high tech and expensive disk setups make drums even more appealing. If you opt for disk, ask questions about reliability, service and how many upgrades of this type are actually on the road (don’t assume a bunch, as trikes are built in relatively small quantities).

Our last micro-rant is the effect that Earthcycles has had on the trike industry. They are selling a lot of trikes. The trikes come in big boxes by semi-truck. The trikes practically roll-out ready to ride. No foreign manufacturer can compete with this price-wise. Being that they are in the USA, they have a useful warranty (shipping a problem frame or trike half way around the world is not exactly cost effective).

The oddest part about dealing with ICE is that there is no published North American component spec. The entire scenario depends on what your dealer is importing: complete trikes, unpainted frames, etc. Specs and prices will vary, as will the method of shipping to the customer. Heed our warning. DO NOT accept it as a frame and box of parts.

## ■ NEW FOR 1999

Production of the Trice has been taken over by a new company called

Inspired Cycle Engineering Ltd (ICE). Peter Ross is still involved, though on a limited basis. The new ‘99 Trice frame is brazed throughout. The main cruciform frame joint has been made neater in appearance. The Speed Ross and Festina are also available from ICE.

## ■ UPDATES (since our test trike)

- ✓ Fillet brazed frame with improved joints and mounting points
- ✓ Adjustable seat angle
- ✓ Easier main frame assembly (due to slanted cut tube ends)
- ✓ Rear fender braze
- ✓ Braze ons for rear V-brake
- ✓ Front derailleur cable guides on the outside of the frame
- ✓ New front light mount or a dynamo head light on derailleur tube
- ✓ Rear chain stay cable stop now non adjustable
- ✓ Faster delivery (target is one month)

## ■ NEW MODELS

- ✓ **Trice XL** (extra low): As per the standard Trice but with a 406 rear wheel and a modified cross tube giving a seat and pedal position 3 inches lower. Gives improved stability to suit sport riders. First models being built in the next production batch.
- ✓ **Trice ST** (Super Tour): As per the standard Trice but with a higher seating position and a lower bottom bracket. Helps those that suffer from numb feet on long rides and is easier to get on and off, aimed at the more sedate rider.

## ■ NEW OPTIONS

- ✓ **Magnum** (Trice M, XLM, STM): All of these models can be supplied with heavy duty frame tubes for riders more concerned about strength than weight. This is great for heavily loaded touring and for those riders



*Note stock Comp Pools and plastic sleeve in boom*

## THUMBS UP

- ▲ Peter Ross has years of trike experience
- ▲ Low Tech: uses readily available parts (as much as a trike can)
- ▲ Nexave Megarange (non 3x7 drivetrain)
- ▲ Improved idler and chain tubes
- ▲ Rare Comp Pool (FAT) tires
- ▲ Recently changed from TIG to brazing

## THUMBS DOWN

- ▼ Bar-end extensions came loose
- ▼ Specs, delivery, shipping, etc. may vary by dealer and country
- ▼ Intense lumbar on seat
- ▼ VERY laid back seat angle
- ▼ Chain tubes had industrial logo imprint
- ▼ Recently changed from TIG to brazing
- ▼ New company owners (no track record)

- ✓ **Disk Brakes:** optional Hope Disk brakes in place of SA drums.
- ✓ **Heavy Duty Front light mount:** Fits on to front derailleur tube bosses and accepts handle bar fitting light.
- ✓ **Custom braze-ons:** Extra bottle bosses, internal front derailleur cable, dynamo mount, pump pegs.
- ✓ **Lacquered Powdercoat:** In addition to standard colors ICE now offers a tough glossy lacquer topcoat.
- ✓ **Coming Soon:** Quick fit front mudguards (single bolt fitting and removal); stiffer/stronger rack mount adapter; computer sensor mount bracket for the Front wheel.

■ **ROAD TESTER RATING/Bob Bryant:** B-

■ **ACCESS**

**Inspired Cycle Engineering Ltd. (ICE)**  
 Unit 9B Spencer Carter Works, Treeton Ind. Est.  
 Falmouth, Cornwall, England TR11 4SN  
 Tel. (011 44) 1326 378848  
 Email: Trice@globalnet.co.uk ☐

**Trice**

TYPE.....	Two wheel in front trike (USS)
WHEELBASE.....	39"
SEAT HEIGHT.....	11"
BOTTOM BRACKET HEIGHT.....	16"
WEIGHT.....	39 pounds
FRAME.....	Brazed 4130 CroMo (w/alum boom)
STEM/BARS.....	Alum. with bar extensions
SEAT.....	Alum. frame sling mesh terylene base

**COMPONENTS**

CRANKSET.....	Shimano Nexave
BOTTOM BRACKET.....	Shimano sealed
DERAILLEUR-REAR.....	Shimano Nexave
DERAILLEUR-FRONT.....	Shimano Nexave
SHIFTERS.....	Shimano Bar-End
CASSETTE.....	NA
GEAR INCHES.....	NA
WHEEL-REAR.....	559mm 26"
WHEEL-FRONT.....	406mm 20"
TIRES.....	Mitsubishi Tioga Comp Pool
HUBS.....	Shimano
BRAKES.....	Front Drums with parking rear brake (Disks optional)
WARRANTY.....	3 Years (frame)
COLORS.....	Powdercoat
PRICE.....	\$2995/\$3200 (3x20") +\$300-\$500 disk brakes

■ **TRIKE INDUSTRY**

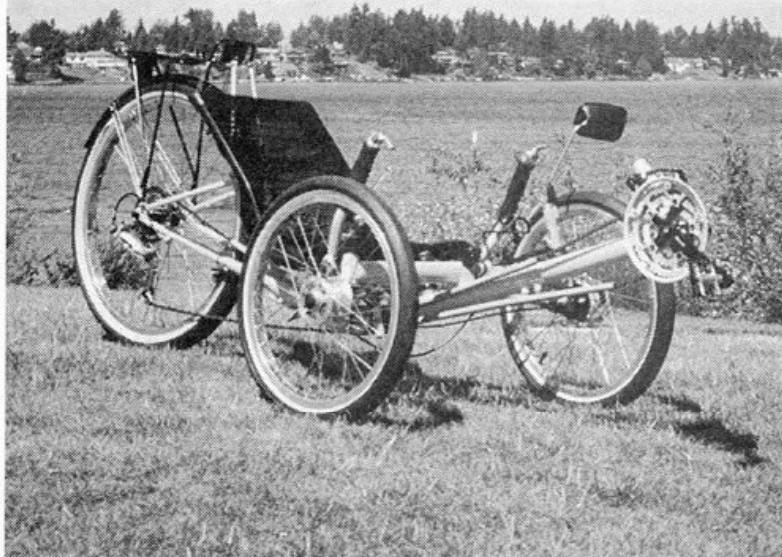
The recumbent trike segment of our tiny industry is undoubtedly the most volatile. Small manufacturers and distributors seem to come and go. We have had some *very poor* experiences with a few trike builders. If you have not seen the trike reviewed in RCN or another magazine—*BE VERY* careful and ask for recent customer references.

We have had positive experiences dealing with Earth Cycles, Greenspeed, Angletech, ICE (Trice) and even S & B (though we have not tested an S & B trike).

**National Bicycle Greenway**

[www.BikeRoute.Com](http://www.BikeRoute.Com)

International Bike Route Directory  
 The World's Largest Recumbent Resource Site  
 TransAm with us in 2000!  
 Email: [cycleam@BikeRoute.com](mailto:cycleam@BikeRoute.com)

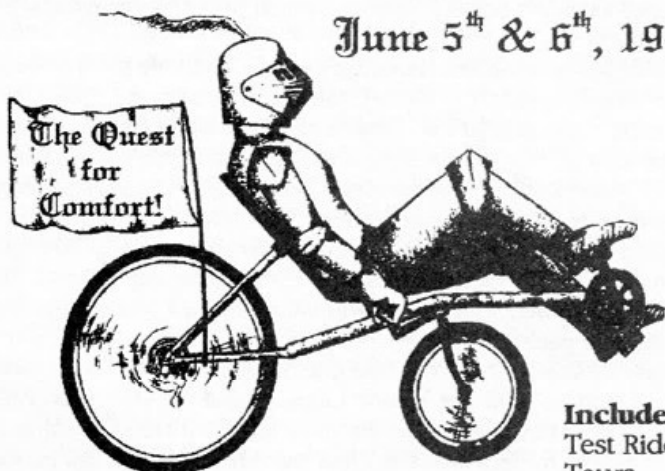


Trice '98 at Lake Meridian in Kent, WA (note: sunny day).  
 After taking the photo, I turned the Trice around and sat here  
 for an hour—Bob, RCN

**Midwest Recumbent Rally!**

Join in the fun with hundreds of other 'bent riders!

June 5<sup>th</sup> & 6<sup>th</sup>, 1999



- Includes:**  
 Test Rides  
 Tours  
 Swap Meet  
 Seminars  
 BBQ Picnic

Call (800) 233-4340  
 for a Rally Flyer or a  
 free recumbent catalog  
 or view both on our website  
 at [www.hostelshoppe.com](http://www.hostelshoppe.com)



929 Main St., Stevens Point, WI 54481  
 HOURS: 10-7 Mon.-Fri., 10-5 Sat.

**Sponsored By:**

- Hostel Shoppe
- Vision
- Rans
- Bike-E
- Recumbent Cyclist News
- Silent Sports

# Venice to Rome

## By Recumbent Bicycle

by Chet Rideout



Chet & Lynn in Rome

**I**t took me three years to get my ducks in a row. In 1995 I did a self-contained bike tour from the Grand Canyon to Rocky Mountain National Park with Piero Tassinari, an elementary school teacher from Meldola, Italy (RCN, June/July 1996). Piero insisted that we should repeat the process in his native Italy, which would be a chance to see Italy through his eyes. This time my wife, Lynn, accompanied us.

The problems of transportation proved surmountable, even though we were flying to Europe with our long wheelbase recumbents. I used furniture boxes that measured 6 feet long for each bike. The bikes were taken apart, removing wheels, seat, handlebars, and the rear derailleur; I packed so much other gear in the boxes (sleeping bags, pads, etc.) that the boxes weighed in at about 55 lbs. I also wanted to use my BOB trailer, so I packed it inside a large duffelbag with the recumbent seats and other gear.

We began our excursion by flying to Hamburg, Germany. There we visited our son Vale, travelling to see the sights by walking, biking, and using the trains. Vale and his girl friend Tia are both performers in musicals in Hamburg, so we went to see them perform in the Phantom of the Opera and in Cats. The bike trails of Hamburg are made of red brick, and they are laid along the edge of the wider sidewalks. If you walk or stand on this trail for more than ten seconds you hear the warning of bike bells, and may have to dodge some serious bike commuter. The wet weather of Hamburg doesn't seem to slow these cyclists, who sport rain gear and even umbrellas! The combination of expensive gasoline, limited parking, well developed bike trails, and regular trains seem to make car ownership in Hamburg foolishness, since we could take our bikes on the trains with us. Maneuvering our long bikes up and down stairs to a second floor apartment proved to be quite a trial, however!

After ten days we left Hamburg by train, and Vale planned to join us later for biking in Italy. We rode the trains for almost 24 hours, with two changes, one at 5:30 am... after many difficulties (involving missing one train in Italy, and taking a slightly later train) we arrived in Mestre. Piero was right alongside; when we didn't appear he simply expected us to arrive on the next train. Piero rode a mountain bike on our Grand Canyon tour in America, but he has since changed to a Speed Ross recumbent for medical reasons. I was riding my Infinity LWB with a BOB Trailer, while Lynn was riding a Rans Stratus and using front and rear packs.

Italy is usually far from being a flat ride, but Piero's itinerary involved starting with the Venice Lagoons and the Po River Valley, which are as flat as a pancake. We were surprised with the volume of traffic - although Piero chose the less travelled routes, small cars and motor scooters thrummed by continuously. We found Italian drivers to be very respectful of bicycles, however, and they gave us a wide berth. We began a pattern of visiting cities from the campgrounds by public transportation - Venice we reached by boat, for instance, and it is virtually impossible to traverse with motor vehicles or by bicycle. It is truly charming as a city, and a large part of its charm is due to the lack of internal combustion engines! We walked its narrow lanes for hours, and also explored by gondola.

We were self-contained on this tour, and camped most nights. On the positive side of the ledger, Italian campgrounds frequently were a cheaper way to get to a good beach, and often had a swimming pool, grocery store, bar and restaurant, and even a laundry. As in the states, they tend to be a better way to get to see and to meet the people first

hand. What we found as a negative, however, is that they lacked any kind of a picnic table or even benches, since this is something the Italian campers supply. This meant we often sat on the ground while eating and cooking, but I found the BOB trailer, when flipped over, makes a fairly decent cooking table. We found the Italians more outgoing, warmer and more reactive than the stalwart Germans, but they also tend to be more gregarious, which can make camping a noisier experience. Showers are usually adequate, although you may pay extra for hot water. Toilets in these campgrounds are often the European pissoirs, which are the trial of a lifetime! Fees are high at the campgrounds (as high as \$12 per person), and we found that at some of the towns a stay at a monastery or seminary would cost no more and be much better equipped. Finding these facilities is easier, of course, with a native Italian guide!

Italian touring has a very different feel than a tour in the western USA, in that history is the main focus. We were continually entering another church or museum. The scenery was interesting near the mouth of the Po River, however, and we enjoyed some of the quaint towns on the way, such as Pellestrina and Porto Tolle. Another difference in Italy is that the highways are not numbered or marked in any way. This makes navigation difficult at times, even for a local Italian like Piero. As you left a town there would be small signs showing what towns lay ahead, but knowing whether you were picking a heavily travelled road or a preferred backroad route was frequently difficult.

We passed Bosco di Mesola, a natural forest preserve, and I saw a radio controlled airplane crossing the road. A little farther on I saw a small airport where the plane landed, and the three of us turned in with our recumbents. Here we were welcomed like royalty, and it turned out that this airport was devoted to ultralight aircraft. One of the pilots, Roberto, successfully rode all of our recumbents, long wheelbase or short, above seat steering or below, loaded or unloaded, without even a twitch. When he asked me if I would like a ride in an ultralight I didn't hesitate - if he could pilot our weird steeds he had my complete confidence. I climbed in behind Roberto, with the three bladed wooden push prop right behind me. After accelerating in exhilarating fashion on the grass runway we were up and away for a big loop above the airport. The wing was adjusted with a triangular framework below, much like in hang gliders, and Roberto was shifting the bar from side to side to adjust for the gusty winds. The landing was also amazing as we skimmed inches over the grass, seemingly speeding up, before setting down and rocking forward. After we gave our thanks and said our good-byes, we headed for the beach and its campgrounds. As we pedaled along we heard the hum of the ultralight engines above us, as a group of them headed east to fly over the beautiful beaches.

After visiting Ravenna and enjoying the fantastic mosaics, we headed inland to Piero's home town of Meldola. This is rolling farmland at the foot of the Apennine Range, and it is incredibly beautiful. We stayed in Meldola for several days, seeing the local sights and enjoying the best food and wines. I found (since I now had access to a bathroom scale) that Lynn and I had overloaded our bikes; we trimmed down our packs in preparation for some hard climbing in the mountains.

The Italian mountains have very steep climbs, often 8% or even 10% grades, and this proved quite a challenge for loaded bikes, even with our third chaining. Small villages along the way are often charming, and we would stop for a farmer's market or for an ice cream cone.



*Chet, Lynn and Peiro use a bike trail—photo by Vale Rideout*

At the Donkey Bridge above Premilcuore we even paused for a swim, which was delightful on this hot day. It seemed that Lynn did amazingly well with climbs on her Rans Stratus. Downhills could be as daunting as the climbs; after reaching the crest we had several miles of continuous steep downhills, and I would have to stop to cool off my rims from time to time.

We stopped at a farm guesthouse, where we set up our tents and dined on home cooking. After dinner I got out my mandolin, and we had a singalong with the farm couple and the guests; a lady from a Caribbean isle, and a couple from Venice. Their favorites were Country Roads, Sweet Baby James, and Clementine. As we finally walked out to our tents we marvelled at the stars and the twinkling fireflies.

We now biked into hilly Tuscany, past scenic vineyards and fields of sunflowers. In Fiesole we camped and were joined by my son Vale on his mountain bike, who said he was a little surprised by the 16% slope on the road up to the campground! We stayed a couple nights and took a bus into Florence, enjoying its many churches and the glories of the Duomo and the Uffizi Gallery. It seems that far fewer Italians ride bicycles on this side of Italy, despite signs saying "If you love Florence, ride your bike." Florence, like many Italian cities, is becoming choked with fast moving Fiats and Vespas. The peaceful experience of Venice was only a memory here, with noisy traffic flowing through this historic town. The idea of closing off even the historic centers of the Tuscan towns to motorized traffic is something that has seemingly never occurred to the Italians, unfortunately.

The next day, after a death-defying bike ride through frenetic Florence, we headed out into the Tuscan countryside and visited the glorious hill towns. All you find here are hill towns because folks just didn't get along in Italy during centuries past. For safety the towns had to be at the top of the hills, where boiling oil and arrows could be rained down on the attackers. Luckily boiling oil and crossbows are now out - what this meant for cyclists like us, however, was that the daily ride was a series of killer climbs, each followed by glorious downhills. The end of

each day was an exhausting ascent into our town of destination. The most amazing day was our ride between Volterra and Massa Marittima. We didn't see one other bicycle during this 40 mile ride (the locals must have known better), and I later figured that we climbed at least 10 miles of 8% grade or steeper that day! We were rewarded here by a local festival with flag twirling contests, and by a visit to the ancient armory with its "weapons of mass destruction." Though we definitely paid in sweat and tears, we also enjoyed the glories of San Gimignano, Siena, Volterra, and Montecerboli on our way to the sea.

We rolled down into Follonica on the Mediterranean, where a crowd assembled to examine our recumbent mounts. We spent several days heading down the coast and swimming at the fantastic beaches. One of the highlights was Talamone, a spectacular medieval town on a cliff. We climbed down a narrow trail to the rocky beach, and enjoyed bobbing in the crystal clear water like baby seals. On another day Lynn swam at the beach near the campground, while the three of us biked up to the ancient Cosa ruins. This was a hilltop town occupied by the Etruscans and later by the Romans.

Now in late July the temperature soared, and I longed to bike early in the day so we could relax and swim during the hot hours. I later found that this was the hottest summer in 50 years in Italy! With our group of four it proved impossible to organize an early departure due to differences of opinion, so we continued to suffer. Stops at fruit stands and stopping under sprinklers provided some relief. Lynn and my son Vale decided to spend more time at the beach when we got to Montalto di Castro, and to get to Rome by train. Piero and I left them at about 10:00am, stopping in Tarquinia to enjoy the Etruscan art. We then headed back "into the furnace" and suffered mightily in our climbs to Monte Romano.

We vowed to get an early start, and departed the next morning at 6:00am. This time we hardly noticed the heat, and climbed from Casaletto to the volcanic crater rim and down into the caldera to Lago di Vico, a famous volcanic lake. Here we swam and relaxed in the campground in



Piero and Chet reach Meldola—Lynn Rideout

quite an idyllic setting.

The next day we had Lago di Bracciano as our intended destination, but we had heard the previous night that Lynn and Vale would be biking into Flaminia today, which is the campground north of Rome. Upon reaching Civita Castellana, I suggested to Piero that we skip the visit to the lake and take Via Flaminio, the Roman road which leads directly to Rome. Piero and I made great time along this well paved highway.

We spent three nights at Flaminia, biking from there into Rome on the bike trail. It was quite an experience to visit Saint Peter's, the Roman Forum, and the Coliseum by bicycle. Another day we visited the Sistine Chapel and the Vatican Museums by bus, and also enjoyed the Fountain of the Four Rivers and the Trevi Fountain as we walked around the city. Finally, on the last day we got some bike boxes and packed up the bikes - a 3 or 4 hour process involving extra boxes as well as some cutting and taping. The trip back was exhausting, to say the least, since to prepare for our early departure we started off by spending the night in the Leonardo da Vinci Airport in Rome! Vale flew back to Hamburg, while Lynn

and I returned to Denver via Frankfurt and O'Hare.

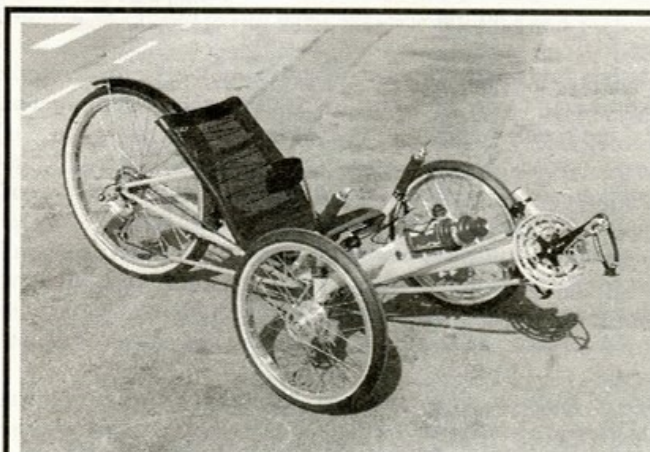
Our Italian trip was fantastic, but in retrospect I certainly would time it differently. With Piero's teaching schedule July was the month of choice, and it proved to be hot and sticky, particularly the last half of the month. If I had my druthers I would do it in the spring or fall. Piero was a fantastic guide, though, and proved indispensable in finding a good route. At another time, we wouldn't have experienced Italy through his eyes, and this made such an amazing difference. □

## True Wheel!

Carries the best....  
Easy Racers • Vision  
Rans • Haluzak  
1-800-607-7915



Peiro rides at the same speed as this classic Fiat (or the Fiat is pedal assist)



See The New 1999 Trice!

## British Built TRICE

Now available  
from US dealers  
Complete trikes or framesets

- TRICE—Fools Crow in Florida—Tel. 904-224-4767
- TRICE—People Movers in California—Tel. 714-633-3663
- TRICE—Calhoun Cycle in Minnesota—Tel. 612-827-8231
- TRICE—The Bike Rack in Illinois—Tel. 630-584-6588
- TRICE—VeloCity Cycles in Michigan—Tel. 616-355-2000
- SPEED ROSS/FESTINA—Zach Kaplan in California—Tel. 415/381-5723

### Inspired Cycle Engineering Ltd.

Unit 9B Spencer Carter Works, Tregonigie Ind. Est.,  
Falmouth, Cornwall, England TR11 4SN  
Tel (011 44) 1326 378848, Email tricehpv@globalnet.co.uk

# Style Enough for the Big Time?

by John Riley

j.riley16@genie.com

**R**esting in my garage through a harsh Toronto Winter is a four-year-old, long wheelbase Vision VR40 with underseat steering. It shows the signs of many enjoyable miles. I am unfaithful to my bikes and tend to get a new one every few years, but so far I have not found one that I am sure I would like better. The ride is smooth and relaxed and the seat is comfortable.

The bike is completely modular. With the appropriate additional pieces, it could be built with a short wheelbase, or the steering could be converted to above-the-seat. The simple monotube frame does its job and keeps the cost of the bike reasonable, given its modularity and performance. But would I say that my trusty steed was pretty or stylish or sleek? Afraid not. Not even close.

Many people who buy recumbents are engineers or technical people. Many of them probably feel that if it works right, it looks right. Form follows function, and that is good enough for them. But lately there has been some talk that, for a variety of reasons, recumbents may finally be poised to reach a much wider market. Recent comments in RCN have raised the issue of supply as limiting factor in the growth of recumbent sales. Supply has been constrained in recent years, and that will need to be resolved.

Beyond that, there is a question in my mind as to whether they have a look that would allow them to ever be really popular. Is their look stylish enough for the fashion conscious? When people buy products, especially expensive ones, they do not just think about function. Consciously or unconsciously they consider what the product says about them, how they will look using the product, and what others will think about them when they use the product. It seems unlikely that any design that strikes the casual observer as "funny looking" or "weird" will ever be widely accepted, and unfortunately that seems to be how at least some recumbents are perceived by adults at the present time.

Leaving aside perceptions of the product created by marketing and just considering the form of the product itself, style is usually conveyed by the characteristics of a surface; its form, color, and texture. But bicycles have very little surface. Mostly they consist of a few tubes enclosing a lot of air. But the shape made by the tubes and the finish of the tubes and components do offer some opportunities.

At the risk of seeming frivolous to the engineers, on the one hand, or suggesting that someone's baby may be less than absolutely beautiful, on the other, I would like to offer some opinions about the look of some of the more popular recumbents. I do not mean to suggest that the builders necessarily had any of these style issues in mind when they designed their bikes, but I believe that shapes convey feelings, whether intended or not.

In fairness to the look of the Vision, I think the new models in the hardtail, short wheelbase, above seat steering format are much more attractive than my somewhat ungainly ride. With the 20 inch front wheel and the longer wheelbase, the proportions are much improved. The bike looks clean and purposeful. The above seat steering is definitely cleaner than the ungraceful underseat bars.

I have told one of the people at BikeE that I thought their bike was



*The Canadian Hurn Custom Bicycle/ Tel. 416-406-2742 or hurn@idirect.com*

the VW Beetle of the recumbent world. BikeE's have been raced successfully. But the bike's reputation is that it may be the most user friendly, though it may not be the fastest or most comfortable. But it is a bike that anyone can hop on and ride. Many people who move up to what they consider a more performance-oriented bike keep their BikeE as a runabout or as a bike that anyone in the family can ride for fun. With the anodized aluminum beam frame, and either riveted-on rectangular stays or air shock suspension, the bike has a technical look. It is very angular, but all the angles, the slope of the handlebars, the beam, and the rear stays are all in the right direction: sloping forward, suggesting speed.

If the angular, technical look of the bike belies its cheerful nature, the proportions do not. The wheels are small and the bike is fairly short. One larger local rider commented to me that he thought the sight of his large person on this rather small bike looked a bit clownish. I think that is harsh. I think more in terms of it being a friendly, non-aggressive look.

The Rans bikes all use small round tubes that are entirely consistent with traditional road bike aesthetics. No one changing over from a traditional road bike would have a problem with these tube sizes. Compare this with the look of the three inch monotube on the Trek recumbent. The Trek is appealing to riders coming over from a mountain bike—as anything goes with mountain bike frame design.

The tube sizes on the Rans bikes are similar to those of road bikes, but the proportions are completely different. Road bikes have almost equilateral proportions in their two triangles. The Rans bikes have triangles too, but they are squashed into narrow wedges. In their favor, these wedges all point forward, again suggesting speed. The V-Rex is probably the best expression of this. Its narrow, pointy wedge frame is angled up slightly, as if ready for flight. The Tailwind also has a simple

wedge frame, but the V-Rex is still a stronger shape. The position of its front wheel suggests nose wheel; the Tailwind's front wheel does not.

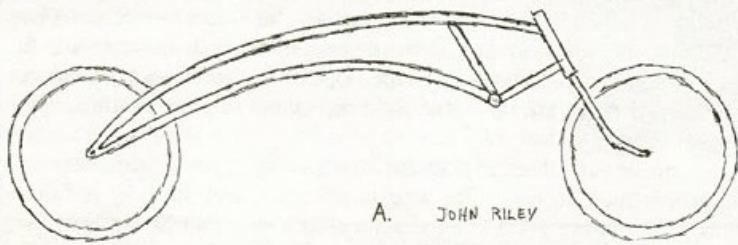
The Tour Easy has a look that says, "Get your motor RUN-nin', head out on the HIGH-way...". If the Rans frames have forward pointing wedges like a fighter plane, the Tour Easy frames have a reverse wedge, like a Harley-Davidson motorcycle. The top line of the frame rises as it runs straight from the rear dropouts to the top of the head tube. The bottom line of the frame is nearly parallel to the ground, running from the rear dropouts to the low bottom bracket. This results in there being a lot of height at the front of the frame. This height keeps the handlebars shorter, and thus stiffer, than on some other long wheelbase above seat steering bikes. From a style standpoint, it all reinforces the Harley image. The style of the bars themselves is also consistent with this look.

Rather than the front end of the frame being designed around a 20 inch fork to go with the 20 inch front wheel, the frame uses an oversized fork. This extended fork look is also a hallmark of the Harley chopper style. Some recumbents may not have enough style for the mainstream; the Tour Easy runs the risk of having too much. It may be over the top for some.

Interestingly, no recumbent designs make use of one popular bicycle style idiom, that of the cruiser. This style has its roots in the balloon-tired bikes of the 30's. It became the mainstay in children's bikes in the post war years. It continues in various forms today. Regular readers will recall that I was quite taken with the GT Cruiser display at the bike show last fall. I was struck by how this look seemed to appeal equally to older people nostalgic about the bikes of their youth and to younger people who were not yet born when these bikes were the only thing going.

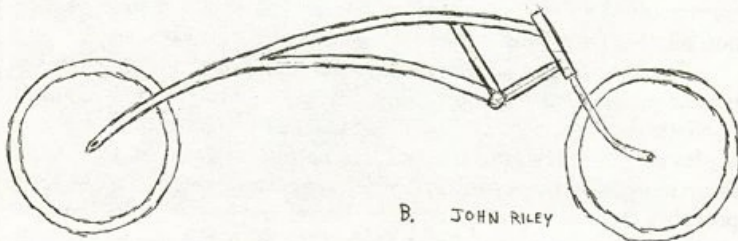
Thinking about these bikes triggered a memory of a bike I had seen in Toronto that had some of this style, but was much closer to being a recumbent. With some effort, I tracked it down. I knew this bike was cool when I had to go to a tattoo parlor to photograph it. The frame comprises two small, gently curved, parallel tubes. The maker, Matt Hurn, describes it as a teardrop shape. The bike is almost recumbent, and could be modified to be one. Unfortunately, the maker is not really interested in pursuing this.

I gave the matter some more thought and decided to make a couple of sketches that illustrate how traditional cruiser bike style might be incorporated into a recumbent. The two arching curved top tubes are perhaps the strongest style signature of the cruiser. It might be possible to leave off the bottom part of a cruiser frame and make a recumbent frame that is almost entirely two arching lines. With design (A), both arches might comprise twin tubes running back to the dropouts.



A. JOHN RILEY

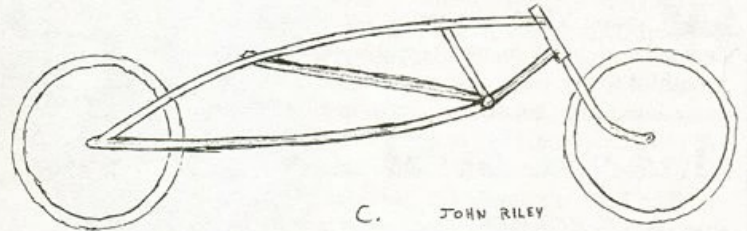
With design (B), a single top tube might just stop where it intersects the lower arch at the rear. Design (B) may simplify issues with the chain line because the lower arch rises higher.



B. JOHN RILEY

In general seat mounting would be more problematic with the curved frame. This might be dealt with by incorporating the seat mounting idea used on the Hurn bike and on the Roadster pictured in ads from Human Powered Machines in RCN. In both cases the bottom seat mount is attached to a tube that telescopes into a diagonal frame member.

I think such bike design could still maintain seat-to-ground, seat-to-pedals, and seat-to-bars relationships consistent with typical recumbent practice for an easy-to-ride, adequately performing bike. For simplicity's sake and to emphasize the basic shape, I have not included any details, or even necessarily all the tubes. These are meant to be sketches, not engineering drawings or plans, although they are roughly to scale. The wheelbase is 65 inches and the wheel size is 20 inches.



C. JOHN RILEY

Frames with curved tubes are harder to produce, especially in the low volumes that are typical of recumbents at the present time. But my premise was to think about what style of recumbent might have broad appeal. Given sufficient volume, I do not think this sort of design would be a problem.

There is another style element that was common on balloon-tired bikes in that past and is also used on some of the GT designs: the tank. These often had some limited functionality, providing for a horn or light. But their main purpose seems to have been to provide an opportunity to make a style statement that linked the bike to the style of the day, particularly as expressed by automobiles. This idea might be resurrected and executed in some modern light weight material. It might have real functionality by providing for a high quality lighting system and maybe a bit of storage space. The upper trailing edge might suggest a dashboard with an integrated computer mount and switches for the lights. The exterior could be shaped, textured and colored to express any desired style motif.

Would these designs be successful? Hard to say. But given the acceptance of the cruiser style over time with different age groups, it might be worth considering if one were looking for a recumbent that might have appeal beyond the current market. And if not this look, then some other. "Weird" and "funny looking" are traits that are not likely to carry recumbents into the mainstream.

Why should anyone care? The more choices there are in the bicycle world, the more likely it is that people are going to find a bike that meets their needs, including those complex emotional needs that are such a big part of any purchase today. More bicycles is a good thing. □

**Editor's Note:** With the mainstream manufacturers coming on board, we are likely to see a design renaissance. The topic that John writes about has been discussed before. Why can't recumbent manufacturers use swoopy curved tubes like those found on \$200 cruisers? The reason has always been that it's much easier to bend and curve 100,000 cruiser frames in Taiwan than it has been for recumbent manufacturers to build a few hundred in the USA. Bending CroMo tubes is expensive; that is why you don't see much of it. I was hanging out with John at the GT cruiser display and it was the character that could be recumbent—and probably the only thing that will ever make recumbents cool.

As for current designs, the big boys are taking a hard look at what is going on in recumbency. The beloved BikeE has been criticized for its "easy-to-build" design premise and the Vision has been described to me as an "engineer's grab bag." Nearly everyone sees the Harley style in the Easy Racer (though if there was ever a bike that needs swoopy curved tubes...). Rans and Lightning designs are the only recumbents that seem to be designed to "road bike" standards—with their triangulation and stiff frames. Lightning even has some cast lugs, a real fork crown and a brazed frame.



# Choices for Transporting your Recumbent

by Peter Lewis  
plewis@execpc.com

**Y**ou finally bought one of those cool laid back, sit down bikes. But how the heck are you gonna get it home?

Recumbents are often much longer than conventional bikes; the frames do not work easily with existing racks. As a recumbent rider for almost 20 years who has tried virtually every form of transporting my bikes, I'd like to share my research with you. I will focus on "off the shelf" products since these are what 99 percent of customers insist on — most folks would rather not build a custom carrier.

## ■ TRUNK-MOUNT RACKS

These racks generally rest on pads on a car's trunk and bumper and are secured with cinch straps that fit under the trunk lid. They are inexpensive and easy to install and remove. Most models have two arms extending out from the rear of the car to hold the bikes. If you hope to use this setup, you must test it first to make sure the rack works with your recumbent. Don't be afraid to hang the bike upside down — that often works for SWB bikes.

**Retail price (est.):** \$100

**Recommended models:** Rhode Gear Super Shuttle, Graber Mountaineer

### ▲ Pros

- ✓ Least expensive
- ✓ Easy to install and remove
- ✓ Easy to load
- ✓ Usually don't require removal of seat
- ✓ Readily available at dealers

### ▼ Cons

- ✓ Bikes will flop around unless tightly tied down, which can lead to damage to the vehicle or other bikes on the rack
- ✓ Work best with SWB and some CLWB bikes



Yakima rack with custom adapter tube  
Photo courtesy Dan Hughes

## ■ ROOF-MOUNT RACKS

These racks rest on the vehicle's roof, rain gutters or a factory roof mount. They are generally sold as a custom package, with feet and crossbars designed for your car or van. After getting the feet and crossbars, you choose the accessories you want.

Bike transport is handled in three ways:

- 1) The wheels rest in a tray and an arm pivots up and grabs the bike frame.
- 2) The wheels rest in a tray and an arm pivots up and grabs a crank arm.
- 3) The front wheel is removed and the bike fork is clamped onto the rack; the rear wheel rests in a tray and is tied down.

Of these configurations, by far the most common for use with recumbents is the third. Trays to hold the wheels come in a variety of lengths that can even accommodate recumbent tandems. In contrast, the second configuration works well only for recumbents with low bottom brackets.

**Retail price (est.):** \$350

**Recommended models:** Yakima, Thule, Saris, Graber

### ▲ Pros

- ✓ Can handle virtually any recumbent
- ✓ Stable mount
- ✓ Can be used for purposes other than carrying bikes
- ✓ Can be locked

### ▼ Cons

- ✓ Cumbersome to install and remove
- ✓ Inconvenient mounting — watch out for car scratches and dents!
- ✓ Usually require removal of seat
- ✓ Bearings penetrable by wind and rain

**Note:** A specialized carrier, the ATOC, is an excellent way to carry long recumbents and tandems. It's very sturdy and makes mounting a one-person operation; what's more, it easily bolts to any of the recommended racks. The ATOC is also the only commercially available rack that accommodates a Longbikes (Ryan) Duplex tandem.

## ■ TRAILER-HITCH RACKS

These racks mount to an existing trailer-hitch receiver. They are designed for use with a 2" receiver but can be adapted to a 1.25" receiver. One model is identical to the trunk-mount racks in that the bikes are hung on arms. Two others are very different:

Peterson Backpacker rack — This rack is iden-

tical to a rooftop rack in which the front wheel is removed and the fork is clamped down. It can carry up to four bikes behind the car.

**Draftmaster rack** — This rack carries bikes with their front wheels removed and their rear wheels held in trays. The bikes are loaded onto the rack quite low to the ground, then the rack pivots up. This allows for easy loading, yet secure transport. Draftmaster is very "recumbent friendly," offering fixtures for every kind of recumbent, including tandems. **Retail price (est.):** \$140 to \$200 (trunk type or Peterson) to \$500 (Draftmaster) (+ \$200 if you need a hitch mount)

### ▲ Pros

- ✓ Keep bikes away from the vehicle, protecting against damage
- ✓ Don't require removal of seat
- ✓ Provide easy loading and unloading

### ▼ Cons

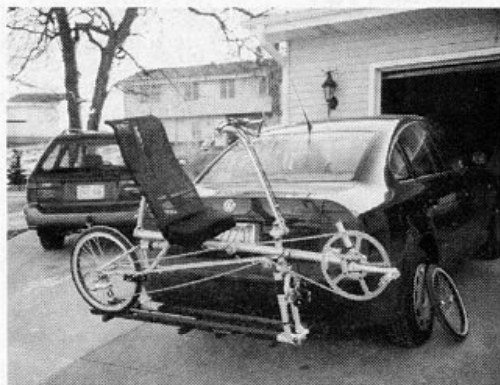
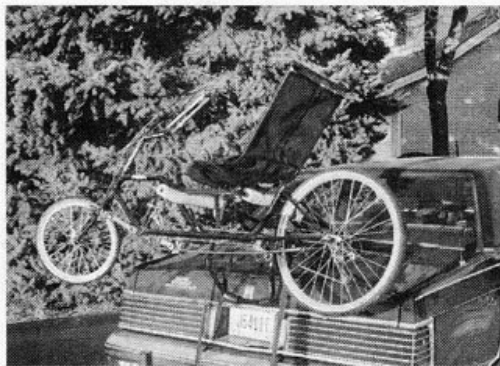
- ✓ Expensive if you don't have a trailer hitch
- ✓ Peterson rack may have to be drilled to center bikes or to carry multiple bikes
- ✓ 1.25" hitches are often very light-duty, and there are reports from hitch manufacturers of hitch mounts buckling with more weight on them than they're designed to handle

## ■ BIKE TRAILERS

There is only one commercially available trailer designed to carry bikes, the Howling Dog trailer. This is a light-duty unit that provides very soft riding and, thus, is easy on your



Draftmaster BikeE (compact) rack



The Peterson rack—Peter Lewis

bike. As of this writing, you must purchase the same accessories for the Howling Dog that you would for a rooftop carrier. However, the company is looking into using a flat bed with wheel trays that would simply require motorcycle tie-downs to secure each bike.

It's also quite simple to construct a bike trailer. Just get a utility trailer (4' X 6') at Menards, large hardware/home stores, or a local trailer manufacturer; screw on a plywood bed, and bolt fork clamps onto the bed wherever you wish.

An interesting fully-enclosed bike trailer has been designed by a tandem-riding couple; the plans are available from Arlyn Aronson at gnarly&san@gogebic.cc.mi.us. This trailer has a hinged top and looks quite well-designed and aerodynamic.

**Retail price** (est.): \$1000 — Howling Dog trailer with accessories. \$350 for a home-built trailer to \$1500 for an enclosed trailer (+ \$200 for hitch/mount)

**▲ Pros**

- ✓ Provide easy loading
- ✓ Don't require removal of seat
- ✓ Useful for multiple purposes
- ✓ Keep bikes away from vehicle

**▼ Cons**

- ✓ Can be expensive
- ✓ Require storage space (Howling Dog folds for garage storage)
- ✓ Can be a hassle when driving

**■ TRUCK-BED MOUNT**

Several models are available for carrying bikes in the back of a pickup. Generally, as with the rooftop rack, the front wheel is removed, the



The ATOC Tandem Rack makes roof mounting much easier—ATOC

fork is clamped down, and the rear wheel is held down.

**Retail price** (est.): \$100

**▲ Pros**

- Provide easy loading
- Provide secure mount

**▼ Cons**

- Protection from the elements
- Difficulty in locking
- Long bikes needs long bed

**■ INSIDE YOUR VEHICLE**

If your bike fits inside your car, truck or van, you've got a great setup. Your bike will be safe and protected from the elements. When you go shopping for a recumbent, take the vehicle you intend to use to transport it, and don't be shy about asking to see if it fits inside. Sometimes you may have to remove the seat or the wheel(s). And you will often have to remove, tilt or slide seats in your vehicle. By actually loading the bike in your vehicle, you can see if it is something you are willing to do every time you take your bike somewhere. There are fork clamps available from several sources (Bike-Tite is one) that can be used to stabilize your bike inside a van by removing the front wheel and clamping the fork.

**Retail price** (est.): \$0 (if you have the right vehicle) to \$40,000 (to get the right vehicle)

**▲ Pros**

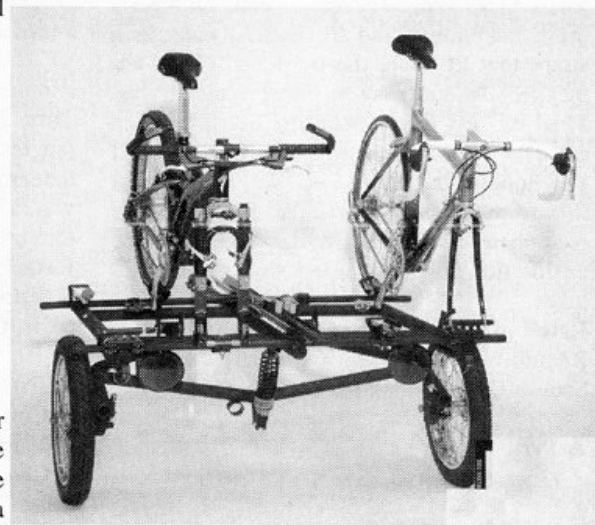
- ✓ Secure storage
- ✓ Protection from the elements

**▼ Cons**

- ✓ Can damage the vehicle and/or bike if not careful loading and securing

**■ ACCESS**

Your local bike shop should be familiar with trunk racks and rooftop racks. ATOC bike car-



Howling Dog Trailer

rier to fit the rooftop racks or the Howling Dog trailer:

**ATOC**

www.atoc.com  
1-800-ATOC-021

**Draftmaster hitch racks:**

www.draftmaster.com  
1-800-659-5569

**Howling Dog Trailer**

www.hdtrailer.fix.net  
1-800-601-7575

A recumbent owners' mailing list is available through www.ihpva.org. By joining the HPV mailing list, you can get help selecting a carrier or getting ideas for transporting your recumbent. It's a good list to join anyway for much lively discussion. □

*Editor's Note: Special thanks to Peter Lewis for researching, collecting info, photos and preparing this article for RCN.*

# Do you dream of cycling the world?

Well, Greenspeed trikes are built to go the distance! Last year Jeff McLean, owner of Greenspeed touring trike #10, built 20/11/1991, set off from China and rode through Asia and Europe to London.



*"Their (Vietnamese) roads can be shocking. My back wheel was flexing so much over the sharp rocks and broken tarmac that, in low gear, the rear derailleur would rub against the spokes frequently. 10km/h was a speed befitting the gods."*

Yes folks, it's Greenspeed owners like Jeff who have tested Greenspeed trikes to the max, so you can be sure that you are getting the very best trike available, and one that will go the distance, when you buy a Greenspeed.

Jeff's trike, frame number GRT 20260010, is an early Greenspeed tourer with a 26" rear wheel. The frame was mainly mild steel with a Cro Mo cross member. Since #10, many, many improvements have been made, which have resulted in a much lighter and even stronger touring trike, the GTR 20/20, with 63 speeds.

*"All seven limitations I noted with my model have now been fixed in subsequent models."*



No wonder the Greenspeed GTR 20/20 was selected by RCN as the Best Trike in 1996, 1997, and 1998!

We are still improving our trikes, and increasing our range of trikes so that we will remain the number one trike manufacturer. The new GTE Expedition Trike has a longer wheelbase, built in pannier racks to take two sets of panniers, and a tandem strength rear wheel. This is the machine preferred by world tourers—capable of dealing with third world roads and a full camping load, yet lighter than #10, and equally at home doing the shopping!

Phone, fax, write or email us for your free info pack, and/or visit our web site.

GTE customised  
for Outback touring.



## **Greenspeed Recumbents**

69 Mountain Gate Drive  
Ferntree Gully, VIC 3156, Australia  
Phone: +61-3-9758-5541  
Fax: +61-3-9752-4115  
Email [info@greenspeed.com.au](mailto:info@greenspeed.com.au)  
Web site [www.greenspeed.com.au](http://www.greenspeed.com.au)

# GREENSPEED RECUMBENTS

# The HPM Trick SWB

by Robert J. Bryant

**J**an Vander Tuin builds recumbents and cargo carrying HPV's under the banner of Human Powered Machines. HPM is located in Eugene, Oregon. The company is associated with Eugene Bicycle Works (EBW), a bicycle co-op, and the Center for Appropriate Transport (CAT). The fleet of recumbents is vast, and they are available for rent, you can work on your bike, have it worked on or learn how to work on it. EBW has obtained grant money to teach area youth all about cycling, and how to build and work on bikes.

## ■ DESIGN

The HPM line has its basis in functional, and comfortable human powered transport. The Tritan, a Ryan-esque delta trike, was tested in RCN#41. There is an upright and recumbent cargo haulers (FWD delta trike), the new LWB ASS roadster, and the bike we featured here, the "Trick" SWB.

The Trick has royal roots. The "A" frame design is simple and was developed by Miles Kingsbury in the U.K. for his no longer in produced Kingcycle SWB. A designer from New Zealand once sold plans for a more utilitarian home-builder "A" frame 'bent called the Rebel Cycle. The Trick falls somewhere in between the two—not as exotic as a Kingcycle, though more updated than a Rebel.

The Trick was developed by HPM as a low(er) cost SWB, especially for kids and shorter riders. The standard version is a BMX bike of recumbents, with its 7-spd Sachs internal gear drivetrain suited best for screaming the bike trails and back roads of Eugene, Oregon. Our version of the Trick is a more deluxe model with 21-speeds, a Sachs 3x7, a newly designed and optional ASS unit (the bike comes in USS or ASS), fenders, a rack and big knobby rough riding, rough road tires.

The Trick has some really neat features, some original, some inspired by other 'bents. The Trick was originally designed for direct-USS, though ours arrived with the new optional fold-forward ASS unit which works very nicely. It has a stem clamp for your choice of bars and the unit is stiff and tough, though the recline setting is nonadjustable. The Trick has a comfy Ryan-esque full sling/mesh seat (with no seat horn—see Dick Ryan, it can be done), though it has wide seat rails (ala Haluzak) that make entry, exit and holding the bike up at a stop a bit more tricky. The seat adjusts with a Rans style quick release on a track on the "A" frame. The seat stays had micro-adjust telescoping clamps as found on the Tritan trike.

## ■ DRIVETRAIN

The drivetrain is pretty nice at this price-point. It consists of the Sachs 3x7, Sachs Centera rear derailleur, and matching Sachs shifters. The shifting with the 3x7 is flawless and far easier than any triple crankset. The braking is accomplished with Shimano LX V-brakes. Before you get too impressed, the 2-finger Servo Wave levers were small and awkward. The front brake power was excellent, but the rear was mushy. We traced this to the internal cable routing (a neat feature), that binds the cable a bit too much. A V-brake cable roller or a rerouted cable would correct this problem. The wheels are a 26/406 fat tire combo. The Trick is outfitted for the most versatile terrain, though the tires (especially the rear) will slow you down if you're looking for performance. The Trick does have performance potential, especially with the laid back new ASS steering column and some more road-friendly tires (buyers to specify).

## ■ ERGONOMICS

The seat likes to be reclined, and the BB is higher than the crank by two inches. The "A" frame is not the stiffest frame design type, especially in the boom. I let local rider take the bike for a spin, and his comment was, "your pedal axles are bent." I told him to more carefully analyze

the situation. He then realized that the Trick's unsupported SWB forward frame was flexing more than his Rocket. This is not a cardinal sin, though a noticeable trait on some "A" frame recumbents.

Any HPM bike or trike is highly customizable. Ours had the optional 21-speed, which makes a lot of sense unless you only want to ride on the flats (with the 7-spd.). The optional rack fit on with the help of a long 1.5" wide aluminum forward mount. This did get in the way of our seat recline (6' rider), though was very pliable. The Apex front fender adapted for the Trick works fine, though the rear isn't worth the trouble. The Apex fender is bolted to the rack and comes out the tail end of the bike, with no coverage forward of the rack (under the seat), which is where you will get the wettest. The 1.5" rack mount won't help much either, though would be a great mounting spot for a Lexan, plastic or coroplast fender. If you are going to ride a mesh back seat in the rain, you need a fender to keep the water from streaming up your back.

## ■ VERDICT

I won't tell you that the Trick is the most refined SWB I've ridden, because it's not. Had I tested it ten, or even five years ago, I'd have been more impressed. SWB design theory has come along way in the last few years, and the Trick has even outlived the bikes that inspired it (Kingcycle & Rebel). The Trick is a bit extreme with its high seat, reclined, ASS and wide seat tubes. Its not the easiest SWB to manage initially—though well within the realm of acceptability. It's twitchy at low speeds, but surprisingly stable at higher speed—though the Trick's handling virtues are not exceptional. Nevertheless, the Trick is a neat bike. Our test bike stayed on in Seattle and is used for city commuting by its new owner. The bike has been dependable—and the owner is satisfied. The bike has had a few minor glitches, including an idler that needed to be replaced.

Jan Vander Tuin is a busy guy. It is not always easy to get info, or get somebody on the phone (I should talk) to take your order and delivery times can be long. Maybe for good reason—this is essentially an \$800 custom built bike. The Trick shines as a low end SWB. Don't make it too much or too fancy, it is fine as a low-tech entry level SWB.

Jan's Human Powered Machines is the retail/for-profit wing of Eugene's CAT (Center for Appropriate Transport). Jan builds a full line of HPV's, workbikes, truck bikes, trikes, etc. Teaching disadvantaged youth is something else that CAT does. In fact, your Trick may even be welded by youth under careful supervision from HPM/CAT.

The Trick SWB is an exceptional value (especially low end). The bike is available on order from Human Powered Machines in Eugene, Oregon. It is sold consumer-direct only and the possibilities from this talented custom and prototype builder are endless. The cost for a Trick is \$825 (7-spd.) and \$925 (21-spd.) for the Sachs 3x7 version.

## ■ ACCESS

Human Powered Machines  
Jan Vander Tuin  
455 W. First Ave.  
Eugene, OR 97401  
Tel. 1-800-343-5568  
cat@efn.org/www.efn.org/~cat/hpm.shtml

## ■ NOTE

The HPM Roadster has created quite stir since it was first photographed in RCN back in 1997. The Roadster is a dual 26" wheeled LWB ASS that shares the HPM Seat with the Trick and Tritan trike. We hope to test one very soon. □



Note the Trick's "A" frame and hornless sling/mesh seat



Our "Trick" SWB test bike—RCN



Most Trick's are sold USS. These are this is the new ASS unit. It does not have an adjustable recline angle

#### TRICK SPECS

FRAME.....	Welded rectangular aluminum "A" frame design (2 main beams run outward from the BB shell back, while spreading to allow the head tube to fit in between and eventually spread wide enough to create rear stays.
FORK.....	CroMo
SEAT.....	Aluminum frame, nylon mesh
BRAKES.....	Shimano V/Servo Wave
DRIVETRAIN..	Sachs crank 38-T., Sachs Twist shifts, Sachs Centera rear derailleur and Sachs 3x7 rear hub.
SEAT HEIGHT.....	23.5"
BB HEIGHT.....	25.5"
WHEELBASE.....	39.5
COST.....	\$925 + shipping

## Good News Travels Fast. *Very* Fast.



The '99 Stratus is better than ever. We've tweaked the geometry, making the frame stiffer, yet lighter.

So it's faster. Even its legendary handling is improved.

Try it at your RANS dealer. And see just how fast good news travels.

Voted "Best Enthusiast Long-Wheelbase, Above-Seat Steering" by RCN's Bob Bryant.

**.25 C**  
CLICK ME

QUALITY RIDE TIME / **RANS**

# Adventures with a Speed Ross

by Brad Teubner  
teubner@means.net

I live in northern Minnesota; we have to drive over 100 miles to find a hill. Roads here are straight and flat. At the age of 38, I began riding bicycle to work, and never pushed hard. In the winters, I walked to work because of the slippery roads.

In 1994, a friend decided to begin a time trial, and I went to the first one so that he would not be alone. To my surprise, six people participated, and, other than the extreme physical discomfort, I enjoyed myself. I didn't mind being the slowest guy there; I had never participated in an athletic competition before, but knew from USAF basic training (24 years earlier) that I was slow. Pushing my Trek 700 hybrid to a best speed of 17.47 mph required leaning one elbow on a hand grip and some discomfort. But I was hooked on going faster.

That summer I took delivery of a new Trice. I had been seduced by the elegant looks in an early RCN road test. The idea of not falling over on the ice, and the promise of a magic speed increases was intriguing. I raced the Trice the rest of that summer, to a best speed of 18.16 mph, not very magic, but much more comfortable.

During the summer of 1995, I devoted serious work to speeding up the Trice. The changes were high-pressure narrow tires, UNI discs on all three wheels, 48/52 for the top front sprockets with cadence speedometer, and a heart rate monitor for the engine. I was tuning the trike, and learning a lot about the motor that I never knew before. The average of my 4 four best times of the season was 19.22 mph. I was seriously chasing 20 mph, but it seemed very elusive.

Late in 1995, I bought an EZ-1 on the spur of the moment. (I was ordering a Tour Easy for my wife, and Gardner made me a favorable offer). I raced the EZ-1 several times that fall, and my best speed was 19.19 mph, which convinced me that the Trice was a dead end as a race machine.

The EZ-1 had never been advertised as fast, and my coverage of recumbents had led to the conclusion that the faired SWB USS was the fastest street-practical bike. In the spring of 1996 I made the choice between a Speed Ross and an F-40 and ordered an F-40. I rode the bare bike for 35 miles and sold it; I just couldn't get comfortable on the very closed riding position. The season of 1996 was devoted to adding speed to the EZ-1. The final version was a poor-mans copy of a Gold Rush Replica, with front fairing, rear pole, and Lycra cover. I christened it "The World's Fattest Dachshund" because I felt I contributed as much to bicycling science as a fat dachshund does to animal science. My average of the best four times of the season was 21.57 mph, well over the 20 mph I had chased for years. By this time, I was the fastest of the old guys in our group, and feeling pretty cocky. There was a 50 mile bike race in mid September (Fertile 50) that I entered on impulse, and I had the kind of experience you would expect of someone in a 50 mile race who had never pushed over 10 miles before. With a time of 2:55 I was one hour off the winners time.

In late fall of 1996 I built a Coroplast cab for my Trice for winter use, and so had experience working with the material in a bicycle application. I also learned that it is virtually impossible to make a compound curve with the stuff, and did not think I could do a good job making a nose cone.

By 1997, I had forgotten the pain of the Fertile 50, and ordered a Speed Ross frame from Peter Ross in England. The main reasons for ordering a Speed Ross were: 1) I was very impressed with the design of the Trice, 2) The frame appeared to have a high bottom bracket for aerodynamic optimization, and 3) it allowed use of the proven tire combination of a 20 x 1 1/8 IRC Roadlite front with a 700c rear that the Tour Easy uses. I also ordered a nose cone, but had not determined the body style that I wanted to use. I set the frame up the way that my experience had taught worked for me: 28/48/52 front, 11-28 seven

speed rear, platform pedals with toe straps, grip shifters, rear rack, speedometer with cadence, wheel discs, and whatever were the cheapest good-quality new (Alivio stuff is fine) or used (how many SWBs have you seen with numerous rock dings in the cranks?) components I could find. I worked hard that summer to optimize my speed, promising myself I would build the fairing when my speed felt right. I had so much fun riding all summer, that I never did get around to building a fairing. My average of the best four runs of the summer (20 runs total, 500 miles on the bike) was 21.23 mph. This was pretty good speed for me on an unfaired bike, but certainly not in the class of the 50 miles/2 hours that won the Fertile race the year before. Because of the disastrous Grand Forks floods in the spring, they did not hold the Fertile 50 race in the fall of 1997.

One of the advantages of living in northern Minnesota is that you get six months to work on your summer bikes (mid October to mid April), so I used the winter of '97-'98 to build a fairing for the Ross. The first question to ask is what type of fairing to build. To answer that question you first have to decide on the use; I wanted something suitable for a 50 mile road race that was still drivable in light traffic. My model was basically the F-40, but I wanted to improve the problems with the Lycra fluttering in the wind, and I was willing to sacrifice some streetability for speed. I had bought Ed Gin's Coroplast fairing building videotape from People Movers, and reviewed his web site on Coroplast fairing building for SWB USS. These are excellent references on building street fairings, but I wanted a streetable race fairing. A side door is nice, but a break to the lines. Bottom openings are great for stop and go driving, but a major air drag. The final decision was a fairing mounted very similarly to the cab on the Trice, but with a bottom that closed. **Note:** a fairing is a non-structural element to improve aerodynamics; a cab is a structure to protect the operator from the elements.

I started with the Ross nose cone, and the first question was which way to mount it. As used by Peter Ross, the flat side is on the bottom and the rounded side is on the top. I studied that for a while, and decided that having the flat side toward the top would allow the nose cone to be lower and optimize forward visibility. Also, having the rounded side toward the bottom started the air around the tires better. (An unanticipated problem with this mounting is that I have to turn the front wheel slightly to raise or lower the fairing. More on that later.)

First, a stand was fabricated out of surplus lumber that clamped to both sides of the rear wheel and allowed me to sit on the bike and move the pedals. Then a child was recruited to hold the nose cone steady on various heights of cardboard box while I back-pedaled and checked clearance and view. Once the location was determined, a cardboard triangle the cross section of the finished mounting bracket was cut and the fit verified. The final bracket was made from surplus TV antenna tubing and flat stock, and is mounted to the front boom with two hose clamps. The 1/4 inch hole in the bottom front of the bracket is the only hard mounting spot for the fairing; remove that bolt (30 seconds) and the fairing lifts off the bike.

With the nose cone mounted, the next issue was the body. A Coroplast body is fairly flexible in the flat sections, and requires structure underneath it to hold shape. I fabricated a structure (where the rear of the fairing would rest when lowered) that looks like a roll bar behind the seat, and bent up a temporary frame that zip-tied to each handlebar grip and defined the area swept by my knees. (The roll bar was built from scavenged lawn chairs.) Two lightweight boards were temporarily clamped to define the upper center line of the bike from the nose cone to the knee clearance frame to the roll bar. The area behind the roll bar would be finished after the front was fit. Several

newspapers taped together gave me a sheet large enough to work with; I taped it to the nose cone at the correct height from the floor, and rolled it around the temporary frame to the upper center boards, cutting pie sections out to achieve fit, taping newspaper back in where I had cut too much out, until one side was defined from the nose cone to the roll bar. That paper was used as the pattern for both sides of the fairing.

With both sides of the fairing mounted to the nose cone, the tail section was cut to fit the clearance needed to miss the rack when opening. The tail section of a fairing is a compromise between tapering off too quickly, or having a sail for sidewinds. I just went as short as possible. The lower rear fairing brace is needed for this type of fairing to prevent sidewinds from blowing the fairing into the rear tire. This was also fabricated from parts of old TV antenna.

The mechanism to seal the bottom of the fairing (I refer to it as the bomb-bay doors) is complicated to describe, but fairly simple to build. Basically, I use nylon cord to pull sections of the lower fairing to the center once I am rolling. Location of the connection points required several weeks of thought, however. The down side is that you have to attach the two center cords to the lower roll-cage frame once seated in the bike with the fairing lowered. You don't just get on this bike, you put it on.

My last addition was a Coroplast tailbox that fit onto the rack under the fairing. It has a bracket that a 2 quart water jug slips into. The cap of the jug has been drilled to take a vinyl tube; the other end of the tube has a Camelback bite tube and a clamp to clip to my shirt.

An unanticipated problem with the fairing (remember, I used this style before on a Trice) is that the bike wants to roll around when you turn the front wheel to lift the fairing, and so sidewinds cause difficulty when putting the bike on.

And so, the question that the gearheads want to ask: Is it FAST? In a single word: brutally (with qualifier: for me and a bicycle). Now the story of the 1998 race season. I raced the spring with the cab, and averaged 25.12 mph for the best 4 of 10 ten mile TTs, hit 23.95 mph in a 20 mile TT, and 23.89 in a 30 mile TT. We took a month vacation where I didn't have much chance to exercise, and I started riding again in late July with the bare bike because of the heat. I started trying to follow a modified version of Bicycling magazine's century training regime. My times with the bare bike were slower than the year before, but I suspect the reductions were because of the fairing mount hardware hanging in the breeze, not because I'm a year older and have more trouble getting the heart rate up.

A month before the September 19 Fertile 50 race, I put the fairing back on the bike and continued serious training. My average of 4 best 10 mile TTs was 25.18 mph, my best 20 mile was 25.04 mph, my best 40 mile was 24.20 mph. I knew these speeds were not good enough to win, but I certainly was in better shape than the last time. (Shucks, I had actually studied nutrition and carbs and glucose and such, besides riding



*A Trice in Winter (for California born-again HPV zealots)—Teubner*

over 10 miles at a time in training.)

During training with the fairing, I had tipped the bike three times. Each time it was after a time trial when I was very tired, and tried to launch without enough concentration. This bike is not for the inattentive, although it has lovely manners once rolling.

The race day was hot and windy. I was up early and did a final inspection of the bike, put air in the tires, didn't change anything that worked in training, mixed the honey water for the water jug, carboed up. They gathered the racers at the start line and said "The route is well marked, and has corner people besides, let's go!" And they got on their bikes and started the race. Here I stood with my bike leaning against a tree in the middle of the grass 30 yards away. I hurried to the bike, rolled it to some pavement, and put it on, slowly and deliberately so that everything fit together correctly. I wasn't hurrying, but when I checked, the HRM said 135. I rolled out of town with the heart rate instantly at 165, passed the sag wagon and stragglers, and had the leading pace line in sight in about 5 miles. I kept them in sight for another 10 miles, on one stretch with a tailwind closing to maybe 100 yards, but we got to a stretch of several miles with severe crosswinds that slowed me down more than them, and I never saw them again. The race went well, I was maintaining heart rate at 155 ok, and the last 30 miles I started eating up the people dropped by the pace line. One young fellow whom I passed sprinted up to run in my wind shadow and was with me when I got to the HILL. I suspect it wasn't much of a hill by the standards of people used



## get your 'bent off the roof!

Stop climbing, lifting and reaching for your bikes!

Mount the DraftMaster into a standard two-inch hitch receiver and carry up to five bikes with a stable fork mount system.

The standard DraftMaster will accommodate SWB bikes.

Add the compact mount to carry CLWB up to 56" or a tandem rail to carry LWB bikes up to 75".

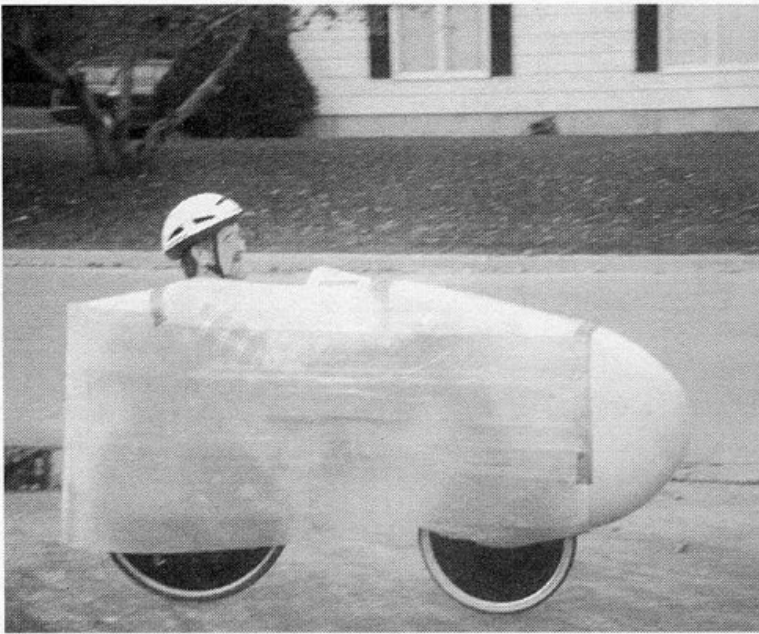
The DraftMaster even pivots away for easy access to rear cargo doors and easy LWB bike mounting.

So reach for the phone and stop reaching for your bikes.

**DRAFTMASTER**

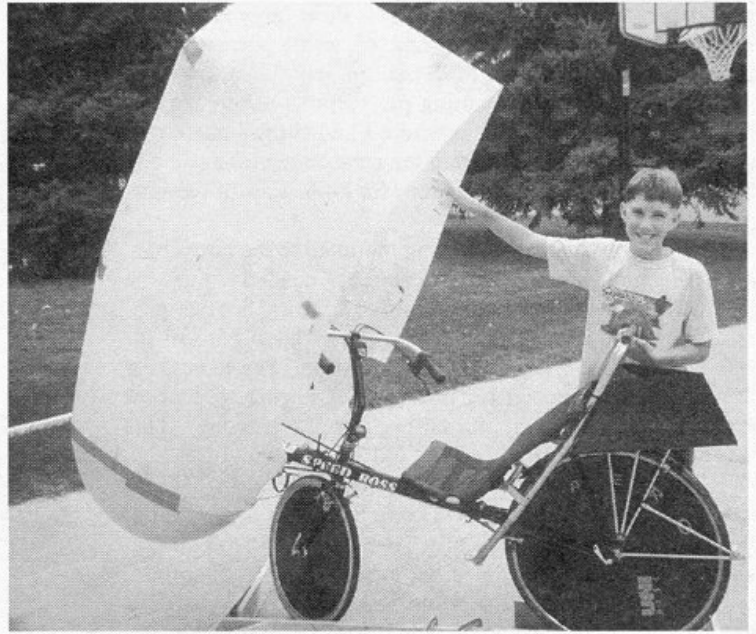
[www.draftmaster.com](http://www.draftmaster.com)

**1.800.659.5569**

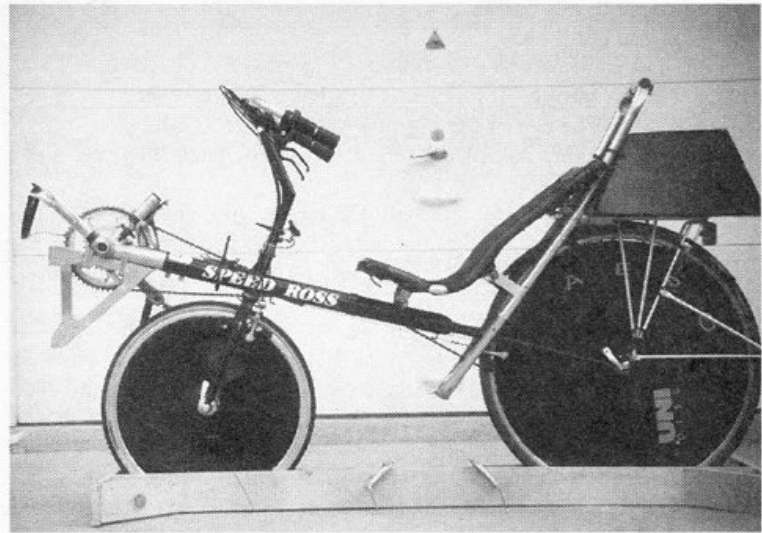


*Egocentric pilot doing camera pass—Teubner*

to hills (actually it was a climb out of a gully), but I had never downshifted below the 48 to the 28 front before, and I thought I had dropped the chain, so I upshifted and wedged the chain between the 48 and 52 on the uphill (never did that before, either). This required taking the bike off and pulling the chain free and walking the bike to the top of the hill before putting it back on. I told the young fellow drafting me to go ahead (he stopped to help) but he said I was his only chance of getting home before supper. I carefully got the bike rolling again and stayed in 48 for the rest of the race. I dropped the young guy once, slowed down to allow him to catch up, dropped him again and decided not to wait. With an average speed of 21.43 mph, I finished 20 minutes off the leader. I think I could have averaged 23 mph without the problems—maybe next year.



*Chief mechanic showing open fairing—Teubner*



*Speed Ross and fairing framework side-view—Teubner*

An interesting note—our TT route is straight out 5 or 10 miles, U-turn on the highway, and return. During the race, I made my first ever 90 degree turns at speed with the faired bike; I had never trained for those.

Tentative plans for next season are to develop a head fairing to go on the bike to improve speed without sacrificing cooling or sight. I think initial development will be done with Velcro attachments, and go to zip-ties for competition. Or find a low racer that allows me to use the 48/58/63 I've already purchased. □

# JAY'S

## PEDAL POWER BIKES

512 E. GIRARD AVE, PHILA., PA

Tel. 215/425-5111 • Fax#215/426-2653

We offer products from **ATP Vision, Linear, BikeE, Rans, Haluzak, Easy Racer, ReBike, Santana** and many more quality bikes and parts. We ship world wide.

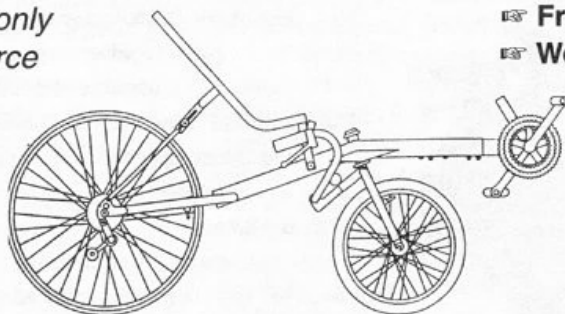
**FREE catalog by request.**



**Rapid Transit Cycleshop**  
1900 W. North Ave.  
Chicago, Illinois  
Tel. 773-227-2288

## We're Chicago's Transportation Alternative

*Visit Windy City's only  
recumbent resource*



☛ Experienced, knowledgeable, recumbent-friendly staff

☛ Numerous models in stock

☛ Free test rides and coaching

☛ Weekend test rides available

☛ Full follow-up service

☛ Recumbents from

☛ Vision

☛ BikeE

☛ Rans

☛ Lightning



# The Industry Responds to Bentan Pist

## VISION ON BENTAN PIST:

I'd like to make some comments on Bentan Pist's rant (RCN#49). It's apparent that this is a pseudonym, so I'm not sure if the writer is actually as angry as he/she sounds, or if this is just an attempt to bait manufacturers. I was going to ignore this collection of misinformation and outright lies, but this is a good opportunity to let everyone know just what we are doing to keep up with demand. So in the interest of marketing, let's take a gander at Bentan's list of complaints.

*"Recumbent manufacturers are cowering in fright, and didn't gear up production in 1998 because they were afraid."* I'm not sure what counts as gearing up for production in Bentan's book of rules, but how about nearly doubling staff? We went from 14 employees to 26 employees in 1998. We also went into 1998 with an 11,000 square foot facility, up from the 4,000 square foot operation we had the year before. Of course, someone might say that we should have tripled our staff, and moved into even bigger quarters. We would have loved to, but that costs money. I'm sorry to say that there is no King Midas here. The owners and office staff have been working for survival wages since the beginning (with overtime, our welders often got paid more than the president). None of us has ever had a holiday bonus. Doubling your staff means your monthly salary commitments double. Sure you will get more bikes out, but it takes time for the money to come back in. Every cent of profit this place makes has always gone right back into the company to increase quality and production. I don't think this is cowering in fright; I think it's indicative of the level of commitment we are making to the recumbent industry. Bentan, if you've got an extra \$500,000.00 lying around you can give to us, we will be glad to add another 20 people and the facilities to keep them busy.

*"It's not our job to promote recumbency."* Well, once again we are being unfairly maligned. How about making a commitment to full-page advertisements in *RCN* and *Bicycling*? How about getting a recumbent on *CBS News* and *Good Morning America*? How about getting exposure (and doing a nice thing) by donating bikes, time and money to the American Lung Association and the American Diabetes Association? We will continue as we get the funds to do so.

*"Nothing is being done to increase production for 1999."* What rock is Bentan digging this stuff out from under? What research did he do to come up with this conclusion? How about our making the commitment to buy parts direct from Japan by the container to make sure we never slow down? How about investing in the labor force to keep pre-building hundreds of bikes during the winter months to make sure we can keep lead times short in the spring? How about our plans to move into a 20,000 square foot facility this year, and grow our staff even more?

Okay, so a 24 speed RX100 bike with a CroMo frame for \$1095 might not be as good a deal as you will get from Trek, but they build more bikes in a week than we build in a year. Personally, I think we are doing great with what we have. I'm not even going to justify the comment about how we "like being a big fish in a small pond" with an answer, it's just too insulting. Just pretend for a minute that Bentan is a real person (*he is—ed.*), and he had to wait for a bike in 1998....Bentan, I'm sorry you had to wait for your bike. Here at Vision, we have always tried to make sure that we quote lead times right up front when orders are placed. I'm not going to say that we haven't occasionally made a mistake, and for those times I am very sorry, but I don't see anything morally wrong with saying "It will take two months to get you a bike" as long as we do supply the bike in two months. You may have a lifetime of "sweat, tears and chain lube invested" in a recreation you love, but that doesn't give you the right to be insulting. Before you publish a lot of crass statements, you should bother checking to see if your facts are straight.

Ricky Comar, Vision Recumbents

## HALUZAK ON BENTAN PIST:

I would like to respond to your article in RCN#49 regarding the production woes of recumbent manufacturers, in particular us (Bicycles By Haluzak). We were aware that our sales were most likely going to go up in 1998 from the previous years; however, we were not expecting sales to more than double! Quite frankly we were blindsided by a tidal wave of orders and we did our best to swim in that situation. Yes, our delivery time increased dramatically and many customers were left waiting up to eight or ten weeks for a bike. We are a small company with very few employees. Everything we do is meticulously hand crafted at our facilities in Santa Rosa, CA and quite frankly it's not as simple as hiring more people and buying some more equipment. We were planning to remain in our then current facility for one more year before moving to a larger one, but it became crystal clear at the beginning of the summer that we needed to move NOW! This proposed an even greater problem: How does a small company completely change production facilities at the peak of the production season? I can assure you that it is not an easy task. Contrary to your belief, we do care (a great deal) about the business that we may have lost last year due to production shortcomings. You suggest that recumbent manufacturers are "unwilling to grow to the level of Trek... or Cannondale" (I'm excluding Schwinn for a reason). Before you go making such a broad statement, think about this for a minute. Bicycles were a viable industry for well over half a century before Trek & Cannondale were even a thought. We (Bicycles By Haluzak, Easy Racer, Vision, Rans, Lighting, Rotator, Linear and all not mentioned here) are the leaders of the pack. Notice that Trek (with all due respect) didn't bother stepping in until they saw a viable future in recumbency (NO RISK). I'm sure that everyone involved in the manufacturing of recumbents would agree that we all believe in what we are doing, and we have faith in the public's growing interest as well as our respective products. Nevertheless this is not a "no risk" business; companies have and will go under. We take great pride in what we do here and we will not sacrifice quality by simply pumping up production. Everybody will learn from their mistakes as we have, and we can all move forward. Taking shots at manufacturers as a whole and relying on broad generalities falls short of the very focus that you say the manufacturers are lacking.

## So What's Different for 1999?

We have tripled the size of our production facility, and more than doubled our staff. We have spent more money than we care to disclose on new equipment. We have expanded our dealer base. We are prepared to triple our production this year, without moving ANY production outside of Sonoma County, CA (let alone overseas). All this, and we still managed to make component upgrades as well as little tweaks to our line of recumbent bicycles. Dealers are receiving their preseason orders on time, and customers are looking at a 3 to 4 week wait for a factory direct custom recumbent. I'm sure that all of the manufacturers are doing the best they can. I know that we are.

Jeremy Lewis, Bicycles By Haluzak

## EASY RACERS ON BENTAN PIST:

If it was as simple as you seem to think, everyone would already be doing it. I do not speak for all recumbent manufacturers with the same authority that you do, but I can speak for Easy Racers with complete authority. We would like nothing better than to be producing and selling in the 6 to 7 figure category and at a price that would make our bikes available to all while keeping the quality up to our standards. We would also like to continue providing employment locally and never, ever, have our name associated with sweat shops and inhumane labor practices in any part of the world.

It is true that we've always been more visionary than bean counter,

more passionate than button-down. Perhaps that's a bad thing. However, some years ago a bicycle industry study was done addressing the cyclical ups and downs of the industry and the amazing number of businesses that went under in the down cycles. The study concluded that most bicycle related manufacturers and retailers that were successful enough to weather the downs had a single thing in common. They all had a founder fired with passion at the helm. The passion was more important than the business acumen.

We were the first and we're still here and we're still growing our company. In over the 20+ years since we started, we have seen many recumbent manufacturers come and go. We used to sell plans, letting people build their own. People often asked if we weren't afraid that someone would take our plans and go into business, competing with us. Well, some did. Then they discovered that it wasn't quite as easy as it sounded. They didn't last; we have.

Contrary to your assertions, we moved into a much larger facility in '98, hired more people, and produced much more than ever before. In '99 we have hired still more people and expect to produce in yet higher numbers. But I suspect we will still not satisfy your demands. However, I personally know of at least two manufacturers that have already gone to offshore production and plan to hit the mainstream markets. Imagine K-Mart recumbents, for just three easy payments of \$29.95 each! While this approach will certainly grow the market, it is not our approach. We look to a different kind of growth as well as maintaining profitability of our own company and growing profitability for the local bicycle shops that stock Easy Racers. Rumor has it that those planning major ramp ups are not yet profitable and still operating in the red and not paying their suppliers. We hope to continue growing a return market, as opposed to a onetime, novelty market. I personally believe that cheap supermarket recumbents can only be good for all of us as people get introduced to recumbents that way, then get disgusted with their low rent recumbent and come to a better bike.

Over the past few years we've been approached more than once by other companies wanting to buy in and "ramp us up". These were serious inquiries. We seriously considered them and invested a great deal of time and energy. In the end, they all turned out to be partners that wanted to put in some money and use their distributors (one of them actually was K-Mart). In return they wanted the company name, company reputation, Gardner's name, Gardner's designs, and the lion's share of the profit. All well and good, except we would no longer have creative or quality control. Some things are more important than just making more bicycles and getting rich. We certainly would like to go to the high production and getting rich place, but we're gonna go there our way. One of these days we may be approached by a potential partner who will understand the pride we take in our product. One of these days we may put out a supermarket recumbent, but only if we can do it to our own quality standards.

I would also like to suggest that raising production and lowering prices is not the only game in town. Last time I checked, nobody at Ferrari was concerned about making as many cars as GM, nor about selling them as cheaply as a Chevy Chevette, nor do they seem to want to blanket the world with Ferrari's. We common people with common

resources can seldom have the very best. In bicycles, in recumbents, we can. Even if they are more pricey than others, my bike is my equivalent of a Ferrari—the absolute best.

As to why a similarly equipped recumbent costs several hundred dollars more than the wedgie, consider the seat, that defining part of a recumbent. These seats, as well as the bikes themselves, are original designs. They contain exotic and expensive materials, space age foams and weaves. It probably costs Rans more in materials and labor to build their excellent seat than it does for the complete bike frame. This is also why over 95% of the people who built their own bike with our plan set bought their seats from us. Your question is the same as asking why an ergonomic office chair costs 3-4 times as much as a plain, wooden, ladder back, kitchen chair.

And yes, the cost of doing business in the USA does make bikes made here more expensive. Labor, benefits and overhead are all more expensive. But we sleep well. And our community approves the employment opportunities we offer to members of this community. I have heard that ethics are not a common part of the business equation today. In that case, we are most pleased to be uncommon.

We may not be going where we want to as fast as we (and apparently, you) want to, but we refuse to be driven by the lowest-bidder, fast food mentality that prevails among both manufacturers and consumers. We are certainly not going to be driven by a loud mouth mentality. With all due respect, I suggest that since you are so sure about it all, you can capture the whole market now. Don't wait. Get your recumbent on the market, make it cheap, make lots of them, you'll be rich by this time next year. You shouldn't have any problem at all.

With a little less respect, I would suggest that if you are going to quote someone, as in "Well, it's not my job to promote recumbency!" it is completely unacceptable not to attribute the quote to the person who said it. The implication of the quote is that some recumbent manufacturer said it! I don't believe it. I think this is a presumption born in your own mind. I don't think you can attribute this attitude to anyone else.

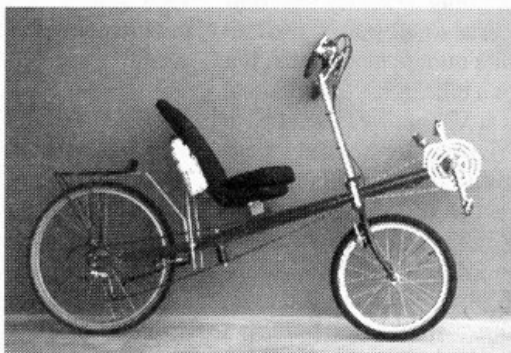
And now, to end my own rant: You throw Schwinn up as a model. I suggest you read the February, 1999 issue of Velo Business, for a brief history of the financial woes of Schwinn, the number of times it's been bought and sold recently and its current bid for profitability, which includes acquiring GT and their 97 million dollar debt. (How does one get \$97 million in debt? One way is to stop paying your suppliers, especially the small business ones who have little or no resources to extract the payment owed to them.) In fact, GT seems to be the perfect model of what you're talking about. Founded in 1977 in the then hot market of BMX, they acquired RiteWay distribution in 1989 to get into the then hot Mountain Bike market. They were major players in terms of numbers and sales, yet in 1998 they were \$97 million in debt with profitability a distant dream. Yet they grew their business exactly as you suggest. Just because recumbents appear to be the coming hot bike is no reason to abandon steady growth, to stop improving, to desert quality, or to dump ethics. We would rather do it the old fashioned way: Proudly Built in the USA In Freedom, Californ-I-AY.

Just my not so humble opinion,  
Sandra Sims-Martin, Easy Racers, Inc. □



Recumboni LWB/Recumbini SWB  
ATP Visions & Metro's / BikeE  
Rans/Lightning/Quetzal  
ReBike & Custom Welding

3317 Cambie Street Vancouver, BC Canada V5Z 2W6



The Cambie Recumbini SWB

## Canada's Premiere Custom Recumbent Builder & Dealer

**SALES / SERVICE / RENTALS**



info@cambiecycles.com



604-874-3616 (f) 874-3696



www.cambiecycles.com

**WE SHIP ANYWHERE  
IN NORTH AMERICA**

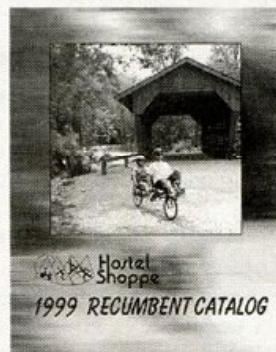
# 'BENTS

You know you want one,  
but you don't know which one.

We've helped thousands world wide.  
Here's how we can help you.

- ✓ Nationally acclaimed, full color recumbent catalog featuring bikes from Vision, Rans, BikeE, Lightning, Easy Racers Greenspeed and Comfort Cycle, as well as a full line of accessories and invaluable information on choosing the recumbent that's right for you.

(To order a catalog call 1-800-233-4340 or visit our website at [www.hostelshoppe.com](http://www.hostelshoppe.com))



- ✓ Web site featuring our catalog, tech talk, Rally info, closeouts, news updates, plus more.

- ✓ Sponsors of the original Midwest Recumbent Rally.

(The 6<sup>th</sup> Annual Midwest Recumbent Rally takes place on June 5<sup>th</sup> & 6<sup>th</sup>. For more info or to register call us at 1-800-233-4340 or visit our website at [www.hostelshoppe.com/rallybk.html](http://www.hostelshoppe.com/rallybk.html))

- ✓ Avid recumbent riders on staff can give you invaluable advice based on their experience and knowledge.
- ✓ #1 Vision dealer in the world.
- ✓ Experienced in shipping world wide.
- ✓ 1998 Closeout bikes at great prices. (Web Address: [www.hostelshoppe.com/demos.html](http://www.hostelshoppe.com/demos.html))
- ✓ Toll free information and order line 1-800-233-4340.



929 Main St., Stevens Point, WI 54481  
PHONE: (800) 233-4340  
FAX: (715) 341-7414  
HOURS: 10-7 Mon.-Fri., 10-5 Sat.  
E-MAIL: [info@hostelshoppe.com](mailto:info@hostelshoppe.com)  
WEBSITE: [www.hostelshoppe.com](http://www.hostelshoppe.com)

## The ZOX • 26 — Speed & Thrills

Review & Photos By Bill Volk  
bvolk@inetworld.net



I am a lucky man. Not only do I live in one of the best bike riding areas in the United States (San Diego), I also manage to get neat equipment loaned to me, just so I can tell you all about it. Of course as a *PROFESSIONAL* bike reviewer, I take this job very seriously. An ordinary review will not do. These machines must be proven in actual competition. Yes, we **MUST** race the bike. Of course I don't mind testing a fast machine, and the ZOX 26 is fast. Surprisingly fast, as a matter of fact.

Sunday Jan. 24th, the alarm clock reads 4:45 ... time to get up. It's the first San Diego Bicycle Club (SDBC) 20km Time Trial of the year and I'm the only recumbent in the bunch. Long time readers of RCN will recall how I took my "back of the pack" time of 39:40 down to 34:10 last spring when I switched to my home built bike. This put me into the middle of the pack, and I just barely beat the time of my fellow bike commuter, Jon Issacs. The rest of the '98 season had Jon doing a bit better than I did (he rides a neat upright time trial bike), mostly due to a less laid back seat than I had last spring on my machine. Still I did manage a 34:23 by November.

As luck would have it, Oliver Zechlin dropped off a ZOX 26 Front Wheel Drive (FWD) bike in December. Unfortunately the December race was canceled due to rain and wind. Jon and I both thought that was wimpy, after all—what's a little rain and some 40 mph gusts? I was really looking forward to racing the ZOX. I did spend some time at the Velodrome that month, and even after a tiring week of commuting I managed to ride the ZOX 23.1 miles in an hour (unfaired). That was a surprise. On the unfaired ultra low Ross Festina I managed a 22.73 mile hour, and that was in competition. That says something for the sophisticated training technique of riding the bike, riding the bike, and riding the bike.

With a 23.1 mile hour, I knew I could beat my 34:10 at the SDBC race, a 23.1 mph pace would be good for a 32:28. I wanted more than that. I wanted to beat Jon. So I picked up the training pace, got some rest the day before, and made sure that I started 30 seconds behind Jon. The course takes three laps around Fiesta Island, there are some gentle grades and the road surface ranges from okay to poor.

I was psyched, I was ready, I was laid back. I pushed the pace to 27+ mph at the start, managed to crest the first grade at 23, and caught Jon just at the end of the first lap. Now class, a little math lesson. If I drive 100 miles at 100 mph, and then I drive a second 100 miles at 50 mph ... what is my average speed? The answer is NOT 75 mph (it's 66 and 2/3 mph). That's the harsh reality of a time trial. If you want a decent average you have to go faster than that speed more than you go slower. So that's what I did; I pushed the pace hard ... the speedo just egged me on. I passed even more riders. I got passed by the Tandems and the "really fast" youngsters.

When I finished I had a time of 31:05 ... or an average speed of 24.13 mph. I haven't ridden with that sort of speed since the Bee Gees had a number one hit. That put me 19th out of the 56 riders who showed up. Heck, 31:05 would put me in the middle of the 20-somethings—not bad for 42.

So what makes the ZOX 26 such a fast machine? It's not all that low, with a 19" seat height. However it has the profile of a low racer, with cranks almost 10" above the seat and a seat angle of 40 degrees from horizontal. It's also got a stiff frame and an efficient drivetrain. Finally, on a poor road surface, the dual 26" wheels (and rear suspension) make sense. ZOX also builds a bike with dual 20" wheels, and that may be a bit faster (I'm willing to try).

The most interesting feature of the ZOX 26 is the "flex chain" FWD system. There are two major types of FWD recumbents. Pivoting boom bikes, as illustrated by the designs of Tom Traylor and William Patterson, have the boom, cranks, and front fork steer as a single unit. These do have a steep learning curve, but the owners swear by them. The best known commercial FWD Pivoting Boom machines are the models built by Flevo in Holland. I've actually managed to ride Mr. Patterson's machines a short distance, but I have the coordination of a rock.

Flex Chain FWD bikes have become a familiar sight in HPV racing. The streamlined Varnas (holder of several records), the Rotator Coyote, various Kingsbury racing machines, the low racer Infinities, and a slew of one-off's in Europe all use the system. In a Flex Chain FWD the boom is fixed, and commercially available ZOX, the Bevo-Bike, uses this approach.

So why flex chain FWD? Why FWD in the first place? When you design a bike with a crank much higher than the seat (i.e. low racer or similar layout) with standard rear wheel drive, you have two choices for routing the chain. For all out speed the best approach is to have the chain run along the front wheel, with a chain idler right under the seat. That's the approach the Festina Extra Low Racer and the M5 Low Racer use. It works great for racing, but makes tight maneuvering a bit of a chore. The other approach is to use several idlers (and/or an intermediate drive) to route the chain above the front wheel and then under the seat. Sometimes you'll have as many as three idlers just for the top (power) side of the chain alone. FWD bikes are a clever way of shortening and simplifying the chain path. Pivoting Bottom Bracket FWD bikes have as simple a drivetrain as a standard road bike, with no idlers at all. The only issue with these machines is the steep learning curve, but I understand that once mastery is achieved the rider enters a higher state of existence and all the mysteries of life are revealed. It is a bit tougher to attach a front fairing, though.

Flex chain FWD bikes can work with two idlers—one for the top, one for the bottom of the chain. Some of these bikes actually use an intermediate freewheel and two chains for more gearing choice. Sergio Gomez (the designer of the ZOX) uses a 4" diameter power side idler, and it's a great solution. I've had the bike up in a rack and the friction from the system is hardly felt. More builders should switch to larger diameter power-side idlers; they work better.

The best thing about the ZOX's FWD system is how little you are reminded that you are riding a FWD bike. Apart from really sharp turns, you never notice it. In fact most of the issues with sharp turns on the ZOX are due to heel strike, and that's not uncommon on recumbents (except for some homebuilts with very high seating). As a test I rode the obstacle course with the ZOX at the January HPVA meeting in Long Beach. I managed the pylons just fine and had only one fault during the entire ride.

I had heard that wheel slip was a problem on steep hills. I took the ZOX up the local double-digit grade and had to force the wheel to slip by jerking the pedals on some wet pine needles. I could do the same on my RWD commuter, and anyway, it didn't cause any handling problems. If you ride in snow or icy conditions, you might not want a FWD bike. Then again, you might need a trike.

But wait, there's more. Not only do you get a really fast machine, you get a recumbent that will pack into a small bike box. The ZOX 26 I tested has a rear suspension that enables the frame to be folded into a rather small shape. In fact the ZOX is packed with lots of excellent



ZOX FWD unit

details, from the little pulley that routes the front shifting cable to the easily adjustable seat mount that can accommodate a pretty good range of rider heights. I like to label recumbents with laid back seats and high cranks "Euro-Style." While the ZOX isn't technically a low racer, it has the feel and most of the aerodynamic advantages of one. The ZOX's layout uses conventional bike stem and handlebars, which enables you to pull on the bars with considerable force. And for some reason it seems to make you go a bit faster. The smooth ride is due in part to the rear suspension, but also relates to the larger than normal 26" wheels. The ZOX 26 is a fast machine that would work equally well as a commuter during the week and a time trial machine on the weekend. That's a considerable achievement by Sergio Gomez.

Oliver Zechlin outfitted the ZOX with an excellent set of components. The aero-bladed spokes, particularly the "twisted" ones used on the rear wheel (actually it's a front wheel, but you get the idea) look cool. The ceramic coated rims are a "good thing" with the powerful Shimano XT V-Brakes. The 24 speed shifting is flawless and the handling is sure and predictable—a good thing, as you'll find yourself going faster than you would expect on most bikes.

Mr. Zechlin is considering importing the frames into the USA, if he can find a way of dealing with our rather bizarre insurance situation. I sure hope he does, and I expect that my next homebuilt will use Mr. Gomez's forks and chain idlers. As to the ZOX 26, Oliver would be willing to sell it for \$1500,



The FWD ZOX 26 in San Diego

but I suggest you act quickly as I have become quite attached to the machine and hope to come up with the cash myself. Yeah, I like the bike that much.

▲ Specs:

Frame.....	1.5" square 4130.
Weight.....	29 Lbs.
Seat Height.....	19"
Boom Length.....	17"
Bottom Bracket Height.....	28.5"
Headtube angle.....	70 degrees
Seat Adjustment Range.....	6"
Seat Back Angle.....	40 degrees from horizontal.
Seat Back Length.....	23"
Seat Back Width.....	8" at base, 11" at shoulders.
Seat Pan Length.....	8"
Seat Pad.....	3/4" Closed Cell Foam

▲ Equipment

- ✓ MAVIC SUP Ceramic Rims
- ✓ Shimano XT V-Brakes
- ✓ Deore XT Derailleurs.
- ✓ Ultegra Cranks
- ✓ 4" diameter power idler.
- ✓ Hard shell Seat (Flux Brand?).

▲ Access

Email: zox-usa@liegerad.com  
www.liegerad.com ☐

## The Cannonball Chronicles

Words of Wisdom By Kent Peterson

**T**he forecast had said today would be sunny and warm, but the forecasters assume they are talking to rational people — people who at least wait until Starbucks is open to start their day. But it's not sunny or warm; it's rainy and cold and by definition, we are not rational people. It is 3:00 AM, a full three hours before Starbucks opens. We are waiting in the drizzle on the Seattle side of the Mount Baker bike tunnel for a guy with a clipboard to count down the start of the 1998 Cannonball.

There are twenty-five of us, all intent on bicycling from Seattle to Spokane as quickly as our legs can carry us. Most of the riders are on conventional bicycles, but there are

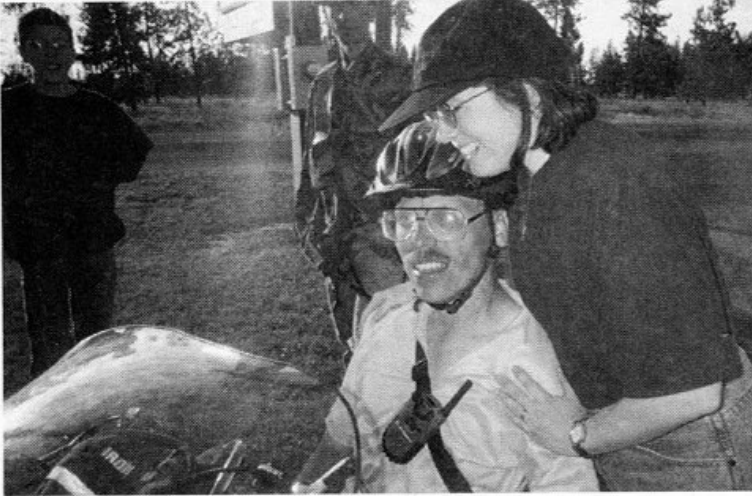
a couple of tandems and three of us are on recumbents. I know all of the recumbent riders and one John Williams is the race veteran, the man whose eloquent descriptions of past Cannonball races somehow made me think this would be fun. John is a quiet, understated fellow who refers to the 274 mile Cannonball as a "reasonably long ride." I make a mental note never to go on an "unreasonably long ride" with John.

John is racing on a carbon fiber SWB bike of his own design. The bike has a crude, home brew look about it and more than a few people have asked if it's carved from wood. While the frame draws the most attention, the really unique feature of John's bike is its two position seat which can flip from a laid back position to an EXTREMELY laid back position. In the nearly horizontal position, John is laid out almost completely flat and I'm convinced that he navigates not by watching the road, but by watching the sky. I personally find the position physically relaxing but mentally frightening.

John's friend Paul Carter is driving John's support van. The van contains food, tools, spare bike parts and a spare bike in case of equipment failure. The idea is that if you flat or have some other problem, the rider can switch to the spare bike and keep going while the support crew fixes the problem. It's a good strategy and is one that is used by most of the riders, although some of the true purists are riding the Cannonball unsupported.

My friend Joe is taking full advantage of having a support vehicle. Joe and I have done some training rides together and a few weeks previously we'd done a test ride up Snoqualmie Pass. On that warm day, I'd crested the pass forty minutes ahead of Joe. I was on my Easy Racer clone and Joe was riding the eighty pound Moby and he looked like death when he reached the summit. A full streamliner like the Moby would be phenomenal going across the fairly flat scrub land of Eastern Washington, but it was dead weight climbing up into the Washington Cascades. So Joe rethought his bike strategy and came up with his triple bike scheme.

For the start of the ride and tricky descents where cross winds might be a problem, Joe would ride, his Rotator Super Seven. For the climbs up Snoqualmie Pass and the Columbia River Gorge, he'd use his Tour Easy. And for the rest of the ride including those long miles across Eastern Washington, he'd ride the Moby, a bike that looks more like a missile than anything powered by a human. Joe's friends Tony



*Kent & Christine Peterson at the Cannonball finish line near Spokane, Washington—Photo courtesy of Tony & Cindy Licuanan*

and Cindy are his support crew, driving the big Chevy van that holds all this gear. My son Peter has also joined Joe's team because, he explains, he wants to "back the winner."

My other son Eric is part of my friend Andy's team. Andy is the youngest of our crowd, all adrenaline and enthusiasm. He's riding a conventional Lemond road bike, and his wife Janet is driving his support truck. Eric is keeping track of the food. Andy is a very strong rider, but he's never ridden more than 200 miles in one day.

I'm riding Rose Red, my custom Easy Racer clone. Rose is decked out with a Zipper fairing, a coroplast tailbox, and a lycra body

stocking of my own design. I'm supported by Steve Nash and my wife Christine. Steve is driving the van and will be my road mechanic, while Christine is handling the food details. In addition to Rose Red, I have borrowed Tony's custom Easy Racer clone, Goldfinger, to serve as my backup bike. Goldfinger is similar to Rose but has skinnier tires, indexed shifting, and no lights or body stocking. Christine commented on the lack of lights on the backup bike. "Look," I said, "the odds are I'll never need to go to the backup bike and even if I do, most of the race is in daylight. The backup bike doesn't need lights." It was one of those plausible sounding arguments that would prove to be dead wrong.

So we roll out into the dark and wet early morning. John and I had discussed our strategy — we'd take it fairly easy for the first section from Seattle to Bellevue and wait until we hit the freeway to pick up the pace. Once we're past the first few miles, it's a straight shot on the freeway all the way to Spokane.

Riding on the freeway isn't as spooky as it sounds. The shoulders are wide and since I-90 is one of the few east-west corridors across Washington State, it is legal to bike on the freeway shoulder from Issaquah to Spokane. Technically, we probably shouldn't be riding the section from Bellevue to Issaquah, but it's only a few miles and traffic is very light in the extremely early morning.

Joe and Andy are up in the lead group early on, while John and I are cruising along a bit back. In the dark, it's hard to keep track of everybody but I'm getting updates from Steve via a small Motorola radio. Tony and Joe are using the same style radios and we're all on the same channel. The radios have a two mile range and as long as I can still hear Joe, I know he's not too far away.

Just past Issaquah at 4:00 AM, I hear a "pfft." A wet chunk of glass just sliced through my rear tire. I radio Steve and the van is there in about a minute. Our test run the previous week had really helped us figure out how to be efficient with the support van. Steve hands Goldfinger down from the van, and I transfer my toolbag and Camelbak tanks to Goldfinger's tailbox. Christine casts a disapproving glance at the lightless bike and the early morning darkness, but at least I have a head and taillight attached to my helmet. Three minutes after I flatted, I'm back on the road. Ten minutes later, the van goes by me and Steve tells me Rose is ready to go. He's swapped in my backup wheel and I switch back to Rose. It's very dark and wet and I'm glad to be back on Rose with her full light set.

I ride for about ten minutes on the freeway shoulder when suddenly I hear a "pop." In the next instant it feels as if some demon hand has reached up out of the pavement and seized Rose's rear wheel. I instantly think I've hit something, and looking down I see part of a derailleur cage lying on the shoulder under my bike. "Huh, what are the odds of that?", I think for an instant and then I come the sickening realization that it's my derailleur cage. I radio the van. Steve and Christine are there in a couple of minutes.

It's bad. Really bad. My rear wheel had popped a spoke. That spoke spun around, caught the derailleur cage, and drove it into the rear wheel, taking out about half the spokes in the process. I don't stick around for the rest of the diagnosis. I'm back on Goldfinger and back on the road.

Now Rose is out of action. Steve and Christine give me updates via the radio and it's bad. The rear derailleur is toast and the wheel is totally unfixable. We still have the main wheel with the flat tire, so that isn't a problem. But getting a replacement derailleur at 4:00 AM is not so easy. If I'd been thinking clearly, I would've directed Steve back to Issaquah and my giant junk pile, but we were all intent on heading to Spokane and it never even crossed my mind to go back. But I did remember Joe.

Joe is even more paranoid than I am when it comes to carrying spares. "Catch up with Joe and Tony. I bet Joe has a spare derailleur." I kept riding, hoping that I was right and that Steve could get Rose back on the road.

Goldfinger is a good bike, but it's not my bike, and without the body stocking, it's not as fast as Rose. A descent that I'd hit 40 MPH on the previous week was a 35 MPH descent this morning. I really wanted to be back on my bike as soon as I could.

Meanwhile in the van, Steve and Christine were debating whether or not to tell me how bad things were. When the derailleur exploded, it bent the derailleur hanger on the frame. Even if they could get a derailleur, cold bending the hanger was a risk. A snapped hanger would put Rose out of action for good. They decided to tell me and we decided to go for it. I'd keep climbing and they'd work frantically to try to get things fixed by the time I got to the top of Snoqualmie Pass.

At least it was getting light now. I'd ridden the pass various times in training and I knew how to pace myself on the climb. The summit is about 50 miles into the race, so I still had a couple of hundred miles to go. I reached the top just before 7:00 AM and I was glad to

My radio had gone dead, but I found Steve and Christine and the van. They'd gotten a derailleur from Joe and had borrowed a giant wrench from Paul Carter to bend the hanger. When we'd built up Rose, we went for beefy parts, and Steve and Paul pronounced the hanger sound. Steve was still trying to debug the drivetrain. We both played around with it and he realized that the derailleur had warped a couple of links in the chain. It took a bit of work with the chain tool to get rid of the offending links, but we got Rose running pretty smoothly. "I'm damn glad you're not running indexing on this bike," said Steve, as he got me back on the road. "Me too!" I replied, and took off.

OK, I've lost 15 minutes at the top of the pass, but it's now a nice, sunny day. Let's rock and roll. I have new batteries in my radio, a fast bike and lots of folks to chase.

Rose was running like a top, but that didn't mean I could catch Joe. Joe had switched to the really fast bike, and I was getting updates from Steve in the van. Steve would run the van up ahead and wait for me to either blow by or signal that I needed to take a food or bathroom break. In one of these leapfrog sessions, Steve pulled along side Joe in the Moby and clocked him. Joe was pedaling along at better than 40 mph on flat ground at the time!

I was gaining ground, passing a few riders on the road, but I passed more of them at stops. Christine, Steve and I had the pit stops down to a science. I'd radio ahead with my food order, and they'd slam provisions onto the bike as I'd pull in.

We picked up a tailwind which let me climb Indian John Hill at 20 mph. This was a great morale booster and I knew that only two more big climbs remained — Rye Grass Hill and the climb out of the Columbia Gorge.

Rye Grass wasn't a fun climb. Temps had climbed into the eighties and we had an interesting obstacle — a prefab house that was being towed somewhere. This thing was wide and sometimes slow moving, so I'd have to swing around to pass it, only to have it pass me a few miles later. My fear was that I was going to get stuck behind it crossing the Columbia River Bridge but it was gone by the time I reached Rye Grass summit. And the climb, which could've been a scorcher, was relieved by a single puffy cloud that miraculously tracked above Rose and gave us shade for the nine miles of climb.

When I pulled into Rye Grass summit, I was pretty beat. This had been a 12 mph climb and I was dying for a roast beef sandwich. "Umm, no roast beef," Christine informed me. We'd packed loads of food, but it's very hard to anticipate every craving.

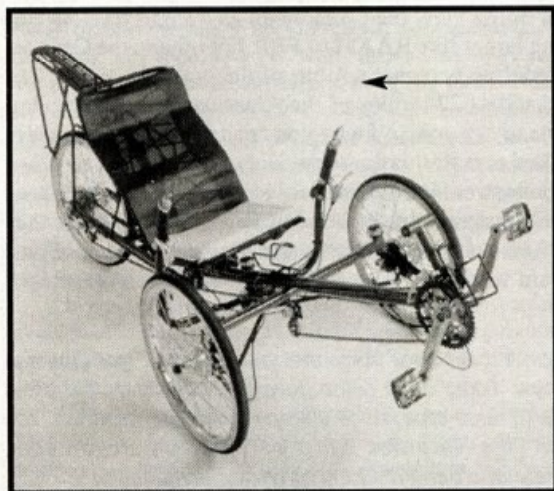
Andy and his crew were at the Rye Grass summit. Andy had changed out of his biking things and his bike was on the rack of his truck. He'd blown out his Achilles tendon and he was out of the race. "Keep going, man," he said to me. "You're doing great. The rest of the bikers fear you guys on the 'bents!"

Christine appeared then with a roast beef bagel. "Where'd you get this?" I asked. "Eric," she replied. My son Eric had brought roast beef as part of his lunch and he gave it to me. I wolfed down the bagel, slammed a Mocha Frappacino, and was on my way.

From Rye Grass Summit to the Columbia River Bridge is a 12 mile descent. Folks like Joe and John love descents and they will let their bikes really rip on a stretch of road like this. I'm a bit more cautious, but I still averaged better than 31 MPH for this section.

Then came the last real climb, a slow 3 miles at 7 mph. But now we were halfway across the state and into recumbent territory. Eastern Washington is scrub desert. It's dry and mostly flat. It's the kind of place that looks like a John Wayne movie set with tumbleweeds and sage brush. It's the kind of place you like to cross quickly.

At the end of the day, I found out about a lot of drama that took place on the course. A tandem team of Jan Heine and Niles Burton led for the first couple of hundred miles but faced a serious challenge from an amazingly strong unsupported rider named Paul Binford. At the 200 mile mark Niles was spent and the decision was made to have Jan con-



## Earth Cycles™ Dragonfly™ Trike

**"The most comfortable trike I've ridden—  
a smooth, predictable ride."**

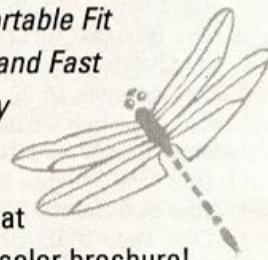
— Bob Bryant, RCN

➤ *Distinctive Features*

➤ *Comfortable Fit*

➤ *Safe, Stable and Fast*

➤ *Quality Componentry*

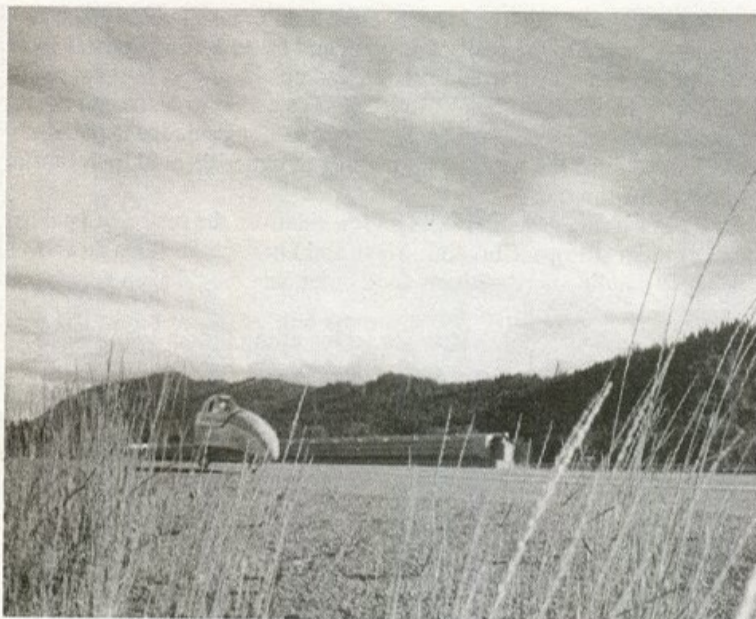


The Earth Cycles Dragonfly trike delivers state-of-the-art features at an affordable price. To see what we mean, visit our web site or contact us for a free color brochure!

612-729-4035 • e-cycles@spacestar.net • www.spacestar.net/users/e-cycles/

May/June 1999

39



Joe "Road Warrior" Kochanowski on the Moby—Tony & Cindy Licuanan

tinue on the tandem without a stoker. Jan rode the tandem solo for the last 7 miles at an average speed of nearly 20 mph and managed to hold off Paul. Jan won the race with a time of 13:47. Paul Binford came in second with a time of 13:57.

Meanwhile, Joe Kochanowski was burning up the course in the Moby. At one point Joe started to fade but his support crew forced coffee down his throat (Joe normally never touches the stuff). Joe finished third with a time of 14:17. A couple of other riders came in fourth and fifth, Ken Carter with a time of 15:26 and the unsupported rider David Sawyer with a time of 15:46.

John and I were still out on the course. I'd catch sight of his support van, and at one point Paul handed me a sandwich as I zipped by, but I never quite caught up with John. I came close at one point when John flattened, but he was on his spare bike before I could take advantage of his misfortune. We did a good job of keeping up the pressure and pushing each other on.

But what really kept me going (aside from Mocha Frappacinos, Cytomax, and a real desire to finish in daylight) was this bike I kept seeing in my rear view mirror. Here I am 250 miles into this race, riding as fast as I can on a pretty damn fast recumbent, and I can't shake this guy on a Bianchi. We kept hammering and it came right down to the wire.

I'd told Christine that crewing for the Cannonball would probably be dull. Like my prediction about the need for lights on the spare bike, this was totally wrong. The numbers tell the story: John Williams came in sixth with a time 16:17, I finished nine minutes later with a time of 16:26 and Kurt Newman finished a minute after me with a time of 16:27.

Out of the original 25 starters, there were 15 finishers. The final results are as follows:

1. Jan Heine 13:47
2. Paul Binford 13:57 UNSUPPORTED
3. Joe Kochanowski 14:17 (recumbent)
4. Ken Carter 15:26
5. David Sawyer 15:46 UNSUPPORTED
6. John Williams 16:17 (recumbent)
7. Kent Peterson 16:26 (recumbent)
8. Kurt Newman 16:27
9. Marty Mayock 16:59
10. Jim Trout 17:49 UNSUPPORTED
11. (tie) John Duggan 17:50
11. (tie) Bob Burns 17:50
13. Dick Pado 20:05 UNSUPPORTED
14. Duane Wright/Linda Knapp/Nicole Nelson 21:13
15. Pete Grey 21:16



Kent on Rose Red—Tony & Cindy Licuanan

The trio of Duane, Linda and Nicole were the first tandem trio to ride the Cannonball. Duane and Nicole rode the first half, with Duane captaining and Nicole stoking. At Ryegrass Summit they switched tandems and Duane stoked while Linda captained.

So at the end of the day, the recumbent riders did OK. Even with the best support crews anywhere and incredibly efficient and comfortable bikes, on this day some riders on conventional bikes were even faster. Sure, Joe would've liked to have come in first, but the first thing he did when he crossed the finish line was to jump out of his bike and congratulate Jan Heine and Paul Binford. And even though I was exhausted, I went over and congratulated Kurt Newman on one hell of a ride. Everyone who'd been at the starting line at 3:00 AM knew they'd been part of something special.

It's easy to dismiss extraordinary efforts by characterizing athletes as something other than human. It's easy to use phrases like "he's an animal," or to characterize an opponent as a "terminator," but the truth is more impressive and more humbling. These men and women are just that, men and women. They take their lives, their time and their minds, and they focus their efforts on one long stretch of pavement on a long day in June. These riders and the people who support them compete for a variety of reasons. Some view the Cannonball as a small training ride en route to something larger like RAAM or PBP. For others, the Cannonball is a chance to redefine personal notions of the possible.

When you ride across 274 miles of the American west in one day, you have a lot of time to ask yourself why you are doing this. I've ridden a lot of miles and asked myself this question a lot of times, but I've never come up with a better answer than the one provided by Bruce Springsteen on his classic album "Darkness on the Edge of Town," "Some guys they just give up living And start dying little by little, piece by piece. Some guys come home from work and wash up. And go racing in the street." □

**Kent's Mission:** A 'bent beat from the back alleys, garages and dumpsters where new bikes don't come powdercoated and old bikes live on with the help of duct tape, hose clamps and determination. You can find Kent on the internet at: [peteron@halcyon.com](mailto:peteron@halcyon.com), [www.halcyon.com/peterson/bentkent.html](http://www.halcyon.com/peterson/bentkent.html) or [www.i.am/laidback](http://www.i.am/laidback)



# Recumbent Mail

If you have a differing viewpoint or experience—we want to hear from you! RCN reserves the right to edit submissions for clarity, content and space limitations. DrRecumbnt@aol.com or RCN, PO Box 58755, Renton, WA 98058

## SPORT CYCLISTS—FAST & RUDE

I'd like to congratulate Bob Bryant on starting to become a lifestyle cyclist, rather than a sport cyclist. I'm 46 years old and have NEVER had a car. It always amazes and saddens me that sport cyclists don't use their bicycles for transportation. When I read cycling magazines, I notice that people will ride their bicycles in events with names like "Pedal for Planet" and "Clean Air Challenge" while poisoning the air with their cars to drive to the event. Many of these people are half my age and quite strong. They seem to see bicycling very one-dimensionally: the point of cycling is to go fast, and your speed is the measure of your worth. Then they wonder why their wives don't want to join their club.

I ride my bicycle EVERYWHERE. I don't seek the company of people who judge you on your speed. (They don't dare judge me, anyway. I ride at night and in the rain. I carry cargo. I ride 6,000 miles a year without even leaving town.)

I think that the sport cyclist mentality deters Americans from bicycling. It also encourages people to think that "fast and rude" is a good way to ride a bike. Motorists in this country dislike spandex-clad packs of cyclists because they are using the road as a playground rather than as a transportation route.

I have always regarded cyclists in street clothes as more serious than those who wear special cycling clothes. I think that everyone except sport cyclists sees it this way. Most people are not sport cyclists.

Being visible in traffic is very important! I usually ride a BikeE. It has two flats, two mirrors, two bells (of different pitches), three rear flashers, and two headlights. It has both under-seat panniers and rear baskets. I have covered these in sequined fabric and reflective tape. You can see my bicycle from several blocks away. This gets me better treatment from the motorists than they give me when I take them by surprise.

My bicycle may, in a way, look silly, but it also looks (and is) very businesslike. It is clearly a cargo carrier, clearly a means of transportation.

Kids are crazy about my bicycle. They point to it and say things like "When I grow up, I'm going to have THAT." Adults have told me that my bicycle is beautiful.

I suggest lots of flags, lights, glitter, and reflective tape to make a bike visible in traffic. Don't worry about looking silly. (As people are sure to tell this.) Try it, it's awesome

Amy Babich, Easy Street Recumbents

## NEVER ENDING TRIKE RANT

It's curious that Seymour Solomon should feel that not having ridden a Greenspeed qualifies him to judge them. As a mere owner, I don't have Ian Sims' bias... at least not as much.

Even at high speeds my GS goes in the direction I point it and out-corners two wheelers without tipping. It's low, but that hasn't been a safety issue on the road. Drivers overtaking my GS react at even greater distances than they do to my SWB. It's wide, about 6" wider than an average cyclist (elbow to elbow), but since road edges are no hazard, I can hug them. If necessary, I can drop a wheel off the pavement while retaining sure directional control, then hop back up with no swerve. Hill climbing and speed depend heavily upon the engine, so they are hard to compare, but riding the GS on RAGBRAI last year, I passed far more folks than passed me even up hills, and more than on previous RAGBRAIs riding SWB or LWBs. I don't recall anyone passing me going down a hill. Not bad for a 60 year old average rider carrying all his camping gear, and believe me, I appreciate the comfort of that seat.

In emergencies, the GS shines. Breaking is powerful and safe. Swerves to avoid road hazards or errant cyclists require no preparation. Gravel? No worry about falling. A surprising advantage is that pursuing dogs seem to have difficulty getting close to me.

Drawbacks? Fifty percent more tires, tubes, weight, and hooks to hang it from my garage ceiling. Because it's low, I take extra care maneuvering near stopped city traffic. With only 1/3 my weight on the drive wheel, the GS loses



Amy Babich on her BikeE—Photos courtesy Larry Kolvoord, The Austin American-Statesman, Austin, Texas

traction climbing on unstable surfaces like wet grass, sand, and loose gravel. On the other hand, I can push on the tops of the front wheels and climb with three wheel drive.

I'm sorry Mr. Solomon has had such poor experience with trikes. He's missing the fun a good trike can offer, but even worse, possibly discouraging others from considering them.

John Kaplan, jck@juno.com

John, low recumbent safety is a personal issue. Since our trike issue ran last summer, I have heard of several low recumbent (several trike) accidents. At least one resulted in death. I love riding recumbent trikes, but won't ride them in traffic. For those of you who do, more power to you—Bob, RCN.

## BIG TIME FEEDBACK

Just a short note to tell you how much I enjoy your publication—don't give up the ship. I (we, the recumbent community) enjoy your forthright style of reporting about the recumbent industry. After reading your editorial in RCN#49 I thought you would appreciate a word of encouragement. As far as glossy paper and color pictures go, I can live without them. It's the written information that tells the story of the industry and the infectious spirit the magazine conveys that I enjoy.

Mike Westra, westra@novagate.com

## MORE BIG TIME

I really enjoy your publication just the way it is. The lack of color photos never crossed my mind. Such photos can usually be found on individual web sites specific to a particular bike. Reading your material leaves me with the impression that I'm getting in on some secret information. The MAIL section is often the most entertaining. And I enjoy your responses to letters. As far as I'm concerned, you can charge as much for your publication as you need to make a profit and to keep from selling it. The one problem that I have to live with from reading your magazine is the saliva that I have wipe off after reading about all the new and improved stuff. Keep it up PLEASE.

Jim Voeller, jvoeller@mind.net

## MADE IN...TAIWAN

Thanks for RCN#49. What a great issue. I have not read it all yet, but the articles about Vision, the show review and the "Bikes that Bob Likes" gave me my money's worth.

## Longbikes Purchases Ryan

# When we acquired Ryan Recumbents, we knew we were going places...

The Vanguard offers supreme comfort and reliability for all types of touring. Tired of retrofitting other recumbents for touring? The Vanguard has all the dropouts and attachment points necessary for quick loading and unloading of racks, panniers and trailers.

At Longbikes, our brand new 11,000 square foot factory is the culmination of a \$1 million investment in state-of-the-art tooling, fabrication and recumbent test equipment, and proof of our unmatched commitment to elevating the sport of recumbent and tandem touring.

.....

*"I received my Longbikes Vanguard and it's all I expected and much more. I've never seen a bicycle built with such precision, quality and attention to detail. It's nice to see there are still perfectionists out there."*

Pearre Chase, Canyon, Texas



Gregory Peek, founder of Longbikes, with the Vanguard recumbent.

**Longbikes**

8160 Blakeland Drive, Unit D, Littleton, CO 80125 ■ 303-471-6700

For our 40-page catalog, call toll-free  
**1-877-TANDEMS**

[www.tandembike.com](http://www.tandembike.com)  
(We make uprights too!)

I have a thought or two about "Made in....Taiwan." Yes, it is true that bikes made in Taiwan are less expensive than many made in the US. But there are at least a half dozen bike manufacturers in Taiwan that offer better, more consistent quality than most of the recumbent (and many of the bike) manufacturers in the US. If you ever have the chance to visit Taiwan, I will arrange for you to visit a few manufacturers so you can see first hand what I am talking about. The better Taiwan manufacturers have ultra modern factories equipped with robots, computerized material handling, and totally automated machining equipment. Taiwan manufacturers offer less expensive products because they are more efficient.

What US manufacturers can do better than folks in Taiwan is design. US 'bent makers live, eat, sleep and love recumbents. Hell, they're practically married to their 'bents. They should know better than anyone how to design a better 'bent.

I admit, if someone thinks of their 'bent more than their first born child, they should buy hand made or US made. They can be on a first name basis with the builder that made it. Hand made will give their 'bent "life" and give them a warm, cozy feeling and lots of thumbs up on the bike trials.

Not surprisingly, all that ego building image stuff comes at a cost. I'm not knocking it. I've got too many hand made Rembrandts lying around my glass house to throw stones at other egomaniacs. No, my reason for commenting about "Made in....Taiwan" is to point out that those of us that take recumbents seriously and want to see our ranks grow have an obligation. That obligation is to tell those entering the sport for the first time how they can get the most comfort, enjoyment and performance for the hard earned dollars they are spending. I think RCN is doing just that, but whether a 'bent is made in Kansas, California, Washington or Taiwan has little to do with how much bang for the buck it will offer the buyer. If we accomplish our objective of turning newcomers into hopeless addicts, then we can ask them to sell the car, mortgage the house and sell their first born to buy the 'bent of their dreams. Until then, let's worry about how it's made rather than where it is made.

Keep Crankin', Fred Teeman

Fred, a Taiwan Tailwind arrived yesterday. It is spectacular, as is the Taiwan built Rans seat—Bob, RCN.

### EVERYONE IS WELCOME

Having subscribed to a variety of bike mags, I find your publication has given me

more pleasure and useful information than any other. There's a "one big family, everyone is welcome" ambiance to RCN (and recumbents generally) that I never felt with the slick mags.

David Kleiner

### HOUSEBIKE RANTS

I like your magazine a lot. I ride a ReBike—heavy, but functional. There is a topic I would prefer not to see in your magazine again, like letters from Patrick Henderson in RCN #49. What do phrases like the following have to do with recumbents? "In the US today, the only reason a person doesn't have a job is because he/she doesn't want one." "They take advantage of the welfare system." "[They] trash the planet [and] do drugs." "[They are] nothing more than leeches on the rest of society." "I hope that civilization never lowers itself to [the bike builder's] level." "Eco-nut raving..." Need I continue, or do you and your readers feel like using a mouthwash about now?

All this vile bile because a homeless guy had an article in RCN #48 about bikes he built that can be slept in! (Seemed a very interesting design, especially the gearing.) The reasons the homeless guy made the bike—he was homeless, and wanted shelter and transportation—are why he designed the bike that way, and thus those reasons are worthy to be printed in RCN.

But letters attacking the bike builder are off-topic. A differing viewpoint, which you invite for your letters page, should be about the bike, not about the guy who made the bike. If Patrick had said the bike/shelter stinks because sleep-in bikes need built-in plumbing and nuclear-powered space heaters, that would be a little more on-topic. I could say that Patrick, by guzzling gasoline in his motor home, heating his house with electricity that is 50 percent produced from burning coal that is strip-mined, and by throwing garbage into leaky landfills and his sewage into the nearest lake, single-handedly trashes the planet more than a dozen homeless guys.

David Strom, davstrom@ricochet.net

### BEST SWB USS

It's interesting you should mention the Vision R44 as being for "shorter/medium build riders" in the latest RCN News. I wish I had known this a year-ago.

I ordered a new R44 from my dealer in January, 1998. It arrived the last Friday in March. My excitement quickly left when I realized the boom couldn't be adjusted for my leg length. I am 6'3", with a 35 1/2" inseam.

After logging around 100 miles, I just could not take it anymore. My dealer

and I placed a call to Vision. They responded very quickly and professionally by sending me a long boom ( for \$125). I was disappointed this was not mentioned in the Vision literature that I used to make my buying decision.

The bike can now be adjusted for riders up to 6'6". I have now logged nearly 3,000 miles on it and have done two week-long tours. I have absolutely no complaints about the fit, the comfort or the performance of the bicycle. I would love to have the opportunity to ride some other recumbents so I could evaluate the differences, rather than just read about them.

Bill Barnes, [william.dyann.barnes@worldnet.att.net](mailto:william.dyann.barnes@worldnet.att.net)  
*Bill, manufacturers tell me all of the time how their "ONE-SIZE-FITS-ALL." For the most part, I don't buy it. One size fits medium height/weight riders best. Shorter riders and taller riders need additional sizes. Maybe the "one-size..." is code for, the seat goes back far enough or the boom out far enough so you can theoretically sit on the seat. What the "one-size" scenario does not address is proper weight distribution. I don't want to have my rear end on top of a shock or have my SWB boom extended to the maximum. The fact remains that each of these manufacturers seems to have an unwritten code about who they are designing bikes for. If you see the phrase, "one-size..." and you are 5' or 6'3", that should be a red flag. We plan to address sizing more in the future—Bob, RCN.*

#### BIKES THAT BOB LIKES

Just got the latest issue — enjoyed it and got a chuckle out of the editor's choices/rants. Just keep on being yourselves and RCN will be fine. We bought a pair of Rans Strati after the fine review in RCN#39 and have really enjoyed riding them. We met you at People Movers Rally and have enjoyed seeing the photos showing up here and there. We're based for the time being in the San Diego area and have enjoyed riding with Bill Volk's group in Mission Bay on occasion. Again, thanks for working your collective fannies off in the rusting rain to keep putting out such a fine mag!

Craig and Vicky Johnsen aboard the schooner MAGIC

#### EVEN MORE BIG TIME

Thanks for the informative editorial in RCN #49! I've been enjoying your fine publication since my brother-in-law demonstrated the wonders of recumbency about a year ago. My Vision R40 was a Christmas present and something I'd been saving for ever since! I look forward to each issue and have found a real education in each issue! I had no idea what a labor of love you put forth each

time another issue is published! I have even more respect and admiration for your efforts now, knowing the degree of effort that you are devoting to keep your fine publication going! WAY TO GO! I enjoy the fruits of your efforts immensely! Keep up the great work!

In response to some of the questions you raised, monthly issues would be wonderful, of course! I can hardly wait for the next edition to come out. Full color would also be wonderful too, but most important to me is to keep publishing. Don't do anything that jeopardizes that!

I read every issue cover to cover, and really enjoy them all. I appreciate your clearly stated and carefully researched opinions and evaluative comments a great deal. I find that most other bicycling magazines do very little coverage of recumbents, so there's not a lot of other material available. "Bicycling" magazine did an article several issues ago, but it was fairly general, and I haven't seen much since.

Knowing of the scale of your operation encourages me to try writing an article about some aspect of riding recumbents myself. As a pastor who often commutes and rides to homes of our members, I find recumbent bicycling to be a great conversation starter, and especially encouraging of rapport with youth! I'm also considering planning a ride for our members and friends this summer.

Thanks again for the informative and helpful editorial. As a user of the third class and first class mail system, I understand your struggles with getting your publications into our hands.

Ron Retherford, [rethford@execpc.com](mailto:rethford@execpc.com)

#### BENTAN PIST RESPONSE

Much of your editorial in the RCN #49 dealt with "an ineptitude at production" on the part of the manufacturing sector as the primary reason for the scarcity of bikes in 1998. Frankly, I am puzzled.

You laud "the design and build quality of the bikes for '98 as being unprecedented," but decry the numbers produced as being evidence of "a lack of confidence in the widespread acceptability of the product."

Having waited a few months for a bike last year, I can certainly attest to how it feels to be on the short of the production stick. And yes, having a frame failure was not a pleasant experience. And yes, I complained long and hard as you do about the situation of having to wait forever and then to wait again while things got sorted out with respect to warranty issues.

But in the light of day some six months later, I can see things more clearly.

## Longbikes Purchases Ryan

# ...One of the places we're going is the short wheelbase recumbent market.

We're pleased to announce our new **Eliminator** (26/20) and **Nitro** (20/20) SWB models. Significant features include:

- Fully-triangulated frame construction
- Large-diameter frame tubes
- Comfortable wide tires
- True Temper OX3 tubing — 73% stronger than 4130 cromoly
- Shimano XT or DuraAce bar end, wide range 27-speed drivetrain
- Shimano 105 triple spline drive crank
- Suspension option
- S&S coupling option for suitcase travel
- Above-seat or under-seat steering
- Available Zzipper fairing
- Quick-release seat hardware
- Beautiful DuPont paint



*Shown is the new 1999 Nitro, available in under-seat or above-seat steering.*

For our 40-page catalog, call toll-free  
**1-877-TANDEMS**

[www.tandembike.com](http://www.tandembike.com)  
(We make uprights too!)

**Longbikes**

8160 Blakeland Drive, Unit D, Littleton, CO 80125 ■ 303-471-6700

Had I been willing to write an editorial back then, it would have sounded a lot like yours does. But my perspective is much different now.

Here, then, is my take on things today. The recumbent community is a bit schizophrenic at best. We've got folks who love old designs and swear by them as the fastest, most reliable bikes on earth. We've got another camp which is chomping at the bit for any innovation possible. I suggest to you that it's the latter group which was most disappointed last season. I am among that number.

If you were willing to buy a tried and true frame from an established manufacturer who was not dealing with late breaking design issues, you most likely got your bike on time. Manufacturers who have "nailed down" their design and offer modest tweaks to provide price point differentiation in their model line were the most successful at getting things to market on time and under budget.

But the big delays were usually in the area of brand new models. On the horn of this dilemma we slowly twist. Do we opt for continuance of proven designs or bear with the manufacturers who are trying to push the envelope? I'd like to suggest that both are reasonable alternatives.

There are four (4) segments to the recumbent community who bear some of the blame for the situation which prevailed last season. They are: 1) the proverbial media who hyped the wondrous new bikes just around the corner; 2) manufacturers who show off their still in progress designs at trade shows and even sell them to a thirsty public; 3) Dealers who take loads of orders on a product gambling that production projections are accurate and; 4) consumers who want to be the early adopters, thus garnering the envy of their peers.

There are no villains here, just players. Media sources cannot refrain from hyping new product; it sells copy. Manufacturers hype unfinished product in an effort to keep the competition on their toes. Dealers have to anticipate possible trends so as not to miss sales. And, of course, consumers are impatient for just about anything new.

There really is no clear way out of this morass. It is a dance as intricate as courtship and just as prone to failure provided the partners are unwilling to bend. What's more, none of the participants were coerced into anything.

Writers don't have to scoop their competition. They could exercise judgment and downplay the availability of product where new designs are concerned. But eventually their readers would complain about lack of advanced information.

Manufacturers could keep their production models under wraps until a sufficient number were in the pipeline and thus ensure immediate availability. But to do things this way would probably leave the public unsure of whether they were about the business of innovation. And most certainly it would be risky to appear less innovative than your competition.

Dealers could either refuse orders on product not already shipped (not likely to happen) or unilaterally downplay availability in order to avoid disappointing customers (a sure means of commercial suicide).

Consumers could keep their powder dry in anticipation of upcoming models (a certain death knell for overall sales)—or barring this misguided effort, simply learn to be realistic about the availability of a scarce commodity. What we don't want to encourage is shoddy production in the name of timely delivery.

So, Bentan, don't be pissed. With a bit of thoughtful deliberation on the part of us all, things will get better. In the meantime let me scour the latest issue of RCN for that sure to be rare and devilishly stylish new model with all the whiz bang options. I want it now!

Signed, Gotta Have It Now

#### MORE BENTAN PIST

I really enjoyed RCN #49. Lots of great stuff, an excellent report on Interbike by John Riley, nice articles on the new kids on the block, Trek's R200, Green Gear's Bike Sat R Day, and Reynolds Weld Lab's foray into recumbency.

The only downer was the guest editorial. Now, don't get me wrong. I'm one of those pinko liberals when it comes to freedom of speech; everyone has the

right to express their views, and we all have the right to disagree. I think what bothered me most was that the coward didn't have the guts to use his real name (or hers, but I'll use the masculine in the universal sense). What is he really afraid of and why? If he believes in what he's saying, then why hide behind some cutesy pun of a pseudonym?

I agree with him that it can be irritating to order a bike and have to wait months for it. In the case of our Screamer, we ordered it in late January for a few very specific parts, and it arrived in early August. Was I jumping for joy at losing out on the pleasure of this sweet machine for over 6 months? No, of course not. Was I thrilled to pieces when we got it and it was EXACTLY what we wanted? You betcha! In our case, though, the problem wasn't completely the manufacturer's fault, nor the dealer's. It's true that it took almost 4 months for the frame to be built with our desired paint color and we were apprised of that at the start, but the next couple of months' holdup was due to specific parts we wanted being out of stock. We actually had to wait for a batch to be made and shipped from Japan. If I were a cynic, I might think I was "fed a line" by my dealer. However, I've worked with him before and there's no way he'd be other than honest, and I sensed as much frustration in him as I felt in myself.

Sure, I could have gotten a Screamer from one of several other shops who happened to have them in stock, and would have gotten it in under a month. But we chose to go with a specific dealer and accept the unfortunate delays as "one of those things". It's not like I needed the Screamer for food or shelter, and it was nice not have to pay out all the money at once.

"Bentan" needs to take a pill and put forth some effort to looking at the other side. Instead of concocting some conspiracy theory about recumbent manufacturers artificially increasing demand by holding back supply, he should visit some of the recumbent manufacturing plants around the US (I'm assuming that's where he's from), and then some diamond frame plants around the country (yes, there are still some diamond frame manufacturers in the US), and THEN decide if the 'bent manufacturers are all sitting around twiddling their thumbs and whitening wood carvings while the orders are piling up.

In all honesty, I've never been to a bike manufacturing plant of any type, so I couldn't tell you step one of how they go about making a recumbent. I get the impression Mr. "Pist" hasn't either, so I wouldn't accept what he's saying without bringing a knife and fork into the nearest salt mine.

Shari Bernhard, shari.bernhard@mail.ccur.com

#### TICKET OUT OF HOMELESSNESS

This little rant was inspired by the letter to the editor from Patrick Henderson. First let me say that I do not live in a bike-house, nor do I ever intend to. However, I'd hate to think that other people missed the point of the article (A Ticket Out Of Homelessness RCN # 48) as Pat did. Brian Campbell may be on the extreme, but it is not fair to stereotype him or other homeless people as "leeches on the rest of society". Okay, Brian may not pay taxes that help to keep our country beautiful, but he also doesn't pollute nearly as much as the average person. There are many reasons that a homeless person cannot get a job, and unless we've been in that situation we should not pontificate as to how simple it is to get out. Homelessness can be a never ending "catch 22" loop for many people. If I were homeless, I'm sure I'd be more concerned with where I was going to sleep that night and how I was going to keep my few possessions and clothing dry before I even began to look for work. Sure there are alcoholics drug abusers and nut bags out there, but there are many more of these "leeches on society" who live in nice homes and drive nice cars. The title of this article was "A Ticket Out OF Homelessness," the very title is suggesting that the "ticket" is an inexpensive mode of both transportation as well as shelter, and "Out Of Homelessness" implies moving to a better standard of living. I think it's sad that some people automatically associate homeless people with trash. Just because someone doesn't have a home, that by no means makes them prone to littering, quite the contrary. Homeless people often collect cans and glass. I've seen homeless people make it their duty to keep a certain place (public park, beach etc.) immaculately clean, for it is their home and they do not wish to trash it.

A bicycle is more than a cool recreational toy. It can be a valuable mode of transportation (just like a car, or in Brian's case a mobile home, not unlike a Motorhome). If you work 8-15 miles from your home, commuting by bike is more than doable! Just think how much environmental damage is caused by the 5 day a week 20 mile round trip commute by car. 10 mile commutes and under can be quicker than by car if traffic is even moderately bad. Commuting by bike is good for both you and the environment. Let us not judge Brian's life style. So it may not be for you and me—however, we can always benefit from another view of the world even if we do not agree with it. Personally, I appreciate these real world recumbent stories. The last thing I want is for some one to see me cruise by on my fancy recumbent bicycle and assume that I'm some sort of better-than-thou-bike snob. Perhaps some people need a subscription to Earth First!

Melissa Lewis □

**FRIENDS DON'T LET FRIENDS RIDE JUNK!** **SPEED MERCHANTS**  **Bike Shop**

(formerly Recumbent Sea)  
**(616) 866-2226**  
e-mail: ride@speedmerchants.com

**106 East Bridge St.**  
**Rockford, MI 49341**  
(just north of Grand Rapids)

**Specialty Products**  
**Great Service**  
**Quality & Value**  
**Competitive Prices**

**LINEAR**  
bike  
**E**

*New and used bents! Shipping available!*

**www.speedmerchants.com**

## USED RECUMBENTS

**NEW YORK'S LARGEST RECUMBENT SELECTION** RANS, BikeE, Vision, TREK & ReBike in stock. Come test ride! The Bicycle Man, 570 Main, Alfred Station NY 14803 607-587-8835 Open, Wednesday through Saturday. WWW.bicycleman.com (54)

**FOR SALE: '98 GOLD RUSH**, Large, Black with polished rear triangle and fork. Sram ESP 9.0SL shifters and derailleur Sachs Quartz front wheel, Specialized Tri Spoke Carbon rear wheel. Shimano Ultegra Crank and narrow Bottom Bracket. Cobra seat. Bronze Zipper fairing with new style mount, can be used with body stocking. Very low miles, this bike is in new condition! \$2,750. Contact John Cunningham 719-683-2713 or JCrecline@aol.com (CO/51)

**FOR SALE: VISION R45 SWB USS**, including a Zipper fairing for \$1600.00 Excellent condition (cost \$3,000 new) call (828)681-5163 EST evenings E-mail MsMtnBiker@aol.com (51)

## TRADES

**LET'S TRADE:** I wanna try LWB. My '94 Haluzak Horizon, SWB/USS, fairing, seat pack, bar-ends, twist grips, recent gear and chain replacement, and more. Good condition. Will trade for Tour Easy. Tel. 760-941-0367 or DONUT96@aol.com

## A Bike Shop Like No Other

Vision - Easy Racer - Haluzak - Rans  
Lightning Bike E - Tandems - Linear  
Trikes - Kids - Accessories - Frame Repair &  
Refinishing Custom Wheels - Obscure Parts  
Rental - Mail Order - Trade Ins - Consignments  
Long Test Rides in Rural Maryland  
Mt Airy Bicycle - www.bike123.com  
Tel. 301-831-5151  
**1-888- RECUMBENT-orders only**

## 21st Century Bikes, Inc. Come Ride The Future Today!



754 Nantasket Ave.  
Hull, MA 02045  
Tel. 781-925-6400  
Fax: 781-925-9732

Free Catalog on request

Come visit New England's  
newest All-Recumbent  
dealer.

Terrific values on BikeE,  
Easy Racer, Haluzak,  
Linear, Rans, ReBike,  
S & B, Kickbike, & more!  
Best prices on B.O.B.  
trailers. Accessories by  
Giro, Beebop, Topeak,  
AirZound, Power Grip,  
Wiley-X, and Primo  
**We Mail Everywhere!!**

<http://www.bikeroute.com/21stCentury>

## Classified Ad Order Info

**Subscriber/Non-Commercial Rate:** \$15 for two insertions to 35 words. Non-Sub.: \$30. Must be prepaid in advance.

**Commercial Rate:** Classifieds \$1.50 per word/ 35 word min. \$52.50. Column inch \$100 each. Ads must be paid in advance. Call Bob at Tel. 253/630-7200.

**Subscriber Free Classified ads:** Recumbent Parts Wanted. Recumbent Parts For Sale, Recumbents for sale-under \$599, Recumbent Tour Partner Wanted/ ride announcements. Ads taken by mail.

**Ad Deadline for RCN#52 is April 15, 1999, until press date or until full. Please plan early!**

## USED RECUMBENTS

**FOR SALE: RED VISION R44**, USS, 16" front wheel, many extras including Zipper fairing and extra rear wheel. DRininger@aol.com or Tel. 812-877-2044 for details. A steal at \$950.00 + shipping. (IN/52)

**FOR SALE: '97 RANS SCREAMER GL84 Tandem**, loaded, most upgrade options + I.C. with 4-gera front, 96 speeds, pearl white, great condition, too much to list. Call for details. Pd \$6500. Sell \$4550. Tel. 925-463-8021 (CA/52)

**FOR SALE: 1998 RANS ROCKET**, low miles, exc. cond., computer, consider delivery in AZ, SoCal area. \$725 Tel. Bill @ 520-624-4608 (52)

**FOR SALE: 1996 RANS ROCKET**, square tube, blue, new tires, gently used. My knees don't like the high BB. \$1100—new, sell for \$625 to you or might trade for Rans Tailwind. **FOR SALE: 1995 BikeE 21 speed**, blue, new tires. \$900—new, \$400 to you. Kelly Tel. 970-625-5025 (CO/52)

**FOR SALE: 1998 VISION R45 USS**, yellow, rigid frame, all Ultegra with 27-spd STI, Conti. tires, 20" front wheel, kick-stand, fenders, light (24 lbs) & fast, very low mi. Exc. cond. \$1950. Tel. 206-725-7831, eves. (WA/52)

**FOR SALE: 1997 DOUBLE VISION**, red Independent pedaling system, 21-spd, Phil Wood hubs, Arai drum brake, fenders, low miles, great condition. \$3100. Tel. 206-725-7831, evenings. (WA/52)

**FOR SALE: 1997 RANS STRATUS**, 350 miles, Sachs 3x7, Zipper fairing, seatbag, Vistalight, Blackburn rack, computer, kickstand, mirror, sharkskin color. Cost \$2600. Sell \$1600. Tel. 425-822-7053 (WA/52)

**FOR SALE: 1998 P-38 XL**, black, never ridden, suspension fork & rigid fork included, Zefal P-38 pump, Thermarest seat cushion with custom cover, P-38 bag. \$2800 value, \$2000 OBO. Jim Tel. 513-748-9548 (52)

RCN CLASSIFIED ADS WORK  
THIS SPACE IS RESERVED FOR YOU!

**RECUMBENT SEA OF NORTH CAROLINA**  
**We have moved!** Rans • Vision • Linear • BikeE •  
Test rides by appt 604 Melrose Ave, High Point NC  
27262 Tel. 336-882-2078 bikewalla@yahoo.com  
<http://members.theglobe.com/bikewalla/index.html>

## 2 SEAT BIKE

**Drives Like a Car!**  
Easy to Pedal  
Multi-Speed  
Street Legal  
1, 2 & 4 Seater

Free Literature

**RHODES/ CAR**

1-615-822-2737 Ext. 16186  
[www.4wc.com/?16186](http://www.4wc.com/?16186)



## The Brilliant British Folding Bicycle



**BROMPTON**

Contact: C.M. Wasson Co.  
1-800-783-3447 or  
[www.bromptonbike.com](http://www.bromptonbike.com)

Recumbent Kit available 1999

## FALMOUTH Recumbent Bicycles

- ▲ PRESEASON DISCOUNTS
- ▲ 100% FINANCING AVAILABLE
- ▲ COMFORTABLE, SAFE, FAST  
BIKES
- ▲ DEMONSTRATION RIDES  
BY APPOINTMENT

**Tel. 207-781-4637**

Fax 207-774-3187

[WWW.SEIS.COM/~MDOYLE/](http://WWW.SEIS.COM/~MDOYLE/)

PO BOX 6781  
PORTLAND, MAINE 04101

## BikeE Seat Extender Kit

Raises back rest 6 inches. Installs in 15 min. Adds comfort & speed. Will fit any year BikeE. On '97 or later, can also add new "sweet seat" cushion. Kit - \$30 +\$5 S/H; cushion - \$50 + \$8 S/H. New BikeE "sweet seats" discount price - \$225 + \$10 S/H. EZ Rider Cycles, PO Box 896, Davenport, WA 99122 (509) 725-4249; ezrider@sisna.com

## True Wheel!

Has your new  
recumbent in stock.  
**1-800-607-7915**

*Easy Street*  
Recumbents 

Laid-back Transportation for the 21st Century  
Austin, Texas • Tel. 512-453-0438  
Call for test ride 7 days a week

## BUILDING PLANS

**RECUMBENT BUILDING BOOK** Steve Robson offers a book aiding the first time recumbent builder. Basics on frame, steering, seats, etc. There are also two sets of plans available. For additional details for prices, etc., see my web site at [www.xcelco.on.ca/~stevbike](http://www.xcelco.on.ca/~stevbike)

**BUILD YOUR OWN RECUMBENT.** Our detailed plans show you how. LWB w/USS and SWB w/OSS or USS styles. Quick build tube kits available. CADD designed w/fully illustrated building guide. \$33 (N. America), \$37 (overseas). MC/VISA accepted. BENTECH, P.O. Box 198, McKean, PA 16426. Website at <http://members.aol.com/domerie/bentech.htm> (53)

**HPV  
SUPPLY**

**for the  
owner-built &  
production recumbent!**

**PRAIRIE DESIGNS/HPV SUPPLY**  
21806 S BROADACRES ROAD  
PRETTY PRAIRIE, KS 67570  
TEL. 316-459-6237  
[www.hpvsupply.com](http://www.hpvsupply.com)

## raptodisc

Discwheel covers for small rim sizes

**When faster is better!**

- Resilient, lightweight, semi-clear fiberglass construction
- Discs for rim sizes as small as 16"
- Install, and reinstall, easily and instantly
- Simple, affordable upgrade for any recumbent

**BAKER  
RIVER  
GROUP**

**\$64.95** each  
Call to order (603) 645-4551



## BIKE FRIDAY Goes BENT!

The Original Suitcase Travel Bicycle



- The Sat R Day™ Starting at \$1995 (fits in a suitcase)
- 1999 Bicycling Magazine Editors Choice Award
- Suspension

Call for a free brochure and information  
**1-800-777-0258**  
[www.bikefriday.com](http://www.bikefriday.com)



Green Gear Cycling, Inc.  
3364 W. 11th Ave.  
Eugene, OR 97402

In the Greater Toronto Area:

Get 'Bent with:

**BikeE, Rans, Easy Racers  
Vision, Trek, Haluzak**



10212-A Yonge St.  
Richmond Hill, Ont.  
(905) 737-4343

email: [spokes@idirect.com](mailto:spokes@idirect.com)  
[www.bikeroute.com/BicycleSpokesman](http://www.bikeroute.com/BicycleSpokesman)

A PROJECT  
OF

CENTER FOR



APPROPRIATE  
TRANSPORT

455 W. 1st Ave.  
Eugene OR 97401

## UNIQUE MACHINES To Buy or Rent

- 2,000 square feet of floored bikes
  - In-House Manufacturing
  - Home of Human Powered Machines
  - Youth Apprenticeships
- CAT 455 W. 1st Ave., Eugene, Oregon  
Tel. 541/344-1197 <http://www.efn.org/~cat>

## FLORIDA

**ATP Vision, BikeE, Comfort Cycle,  
Easy Racers, Freedom Cycle, Haluzak,  
Lightning, Linear, Rans**

## ATLANTIC BICYCLE

6350 W. Atlantic Blvd.  
Margate, FL 33063

1-888-41-BENTS (23687)  
(954)971-9590

[www.bikeroute.com/AtlanticBicycle](http://www.bikeroute.com/AtlanticBicycle)

## Support without a wedgie.

We can't help you with your friends, but we can with your shorts. Call for catalog of technical recumbent apparel, including chamoisless shorts with seamless crotches.

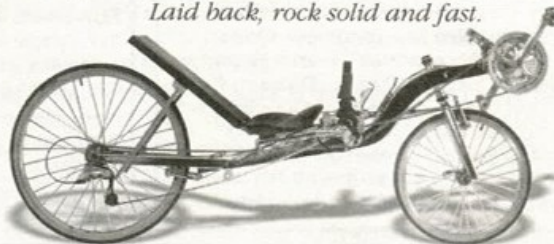
## calhoun cycle

1622 W. LAKE ST. MINNEAPOLIS, MN 55408 (612) 827-8231 [bent4good@aol.com](mailto:bent4good@aol.com)



## Reynolds Weld Lab Frames

Laid back, rock solid and fast.



- Rigid, rectangular alloy steel tube frame set
- Stable at low and high speeds
- Dual 20" or 26" rear, 20" front wheel
- Frame sets start as low as \$1,250
- Full line of accessories available

Call Now (603) 432-7327

## Vancouver Island's Recumbent Specialists

- BikeE, Rans, Vision, More. Trailers by Burley, BOB, Chariot, Equinox.
- Marinoni and Miyata Touring Bikes, Unicycles, KHS Tandems, Peugeot Cruisers.
- Hard to Find Tires, Parts and Accessories, Repairs, Brazing, Alignment.

-Serving Western Canada and the Pacific Northwest-



Phone: (250) 381-2453

1275 Oscar St., Victoria, BC, V8V 2X6

Email: [fairbic@islandnet.com](mailto:fairbic@islandnet.com) - Fax: (250) 384-2453

## BIKE WORKS

Located in south Everett, WA at 12717 4th Ave. West is the premier recumbent dealer in Snohomish county. We speak recumbentese and provide unmatched customer service. Check our web site at <http://www.bikeworkswa.com>.

**425-742-2600**  
**425-348-7999**

## RECUMBENT RIDER GROUPS

- ▲**AL/N. Georgia:** First Sat/Mo 9am—Hokes Bluff, City Hall-Dave ☎ 205/492-3454 or burgess@cybrtyme.com
- ▲**AZ—Tucson Area:** Bruce Tucker— ☎ 520/299-7146 BentOne@aol.com.
- ▲**CA—LA:** 3rd Sun/Mo 10 am@Burton Chace Park, Mindanao Wy, Marina Del Rey. Chris Broome ☎ 310/823-2464, cbroome@usa.net
- ▲**CA—Orange County:** 2nd Sat/Mo People Movers ☎ 714/633-3663
- ▲**CA—SF:** 1st Sat/Mo 10am@ Mill Valley Plaza Zach Kaplan ☎ 415/381-5723 or zakaplan@earthlink.net
- ▲**CA—San Diego:** Last Sat/Mo Mission Bay Visitors Center Bill Volk ☎ 619/824-8323, bill\_volk@lightspan.com
- ▲**CA—Sacramento:** Rides along the American River. 1st Sat/Mo. Dave ☎ 916/483-4435 or SacBent@aol.com
- ▲**CA—San Dimas:** Sat & Sun rides odonnell@xisis.xerox.com or lscheetz@cyberg8t.com
- ▲**CA—Ventura:** 1st Sun/Mo 9am @ Cycle Scene, 2893 Johnson Dr, Ventura, CA, Contact: Barry ☎ 805-650-9338 or Barry@cyclescene.com
- ▲**CO—Arvada/Westminster:** R.C. Wild ☎ 303/426-5191
- ▲**CT—Yankee Pedalers:** 2nd Sun/Mo @ 9am. Dave Tipping ☎ 203/484-2937 or nz1j@juno.com
- ▲**FL—LASERR:** Weekly rides. Ed Deaton @ 904/224-4767, edde@freenet.th.fl.us
- ▲**GA— Moreland: ARC - Atlanta Recumbent Cyclist First Sat./Mo 10am.** Ben ☎ 770-578-9380 or VrexBen@aol.com.
- ▲**ID—Sun Valley area:** From the True Wheel. Bob or Reggie ☎ 208/788-5433.
- ▲**IL—Chicago:** Len Brunkala, 260 S. Channing, #1, Elgin, IL, 60120 or Ed Gin ☎ 773/237-6624
- ▲**IL—Champaign/Bloomington:** Tom Smith ☎ 217/351-7305 or tsmith4@students.uiuc.edu or www.mtco.com/~webstwl/circ1.htm
- ▲**IL—St. Louis:** John Werner Tel. 618-931-0557 or bentrus@usa.net
- ▲**IN—Ft Wayne:** Wendell Brane ☎ 219/749-5610 or WBrane@Ctlnet.com
- ▲**KS—Lawrence:** John Dreiling, Box 1342, Lawrence, KS, 66044-8342. ☎ 785/832-9757
- ▲**KY—Louisville:** Last Sat/Mo @ 8am Central Park (6th & Magnolia). Rain cancels. Mike Reilly ☎ 502/491-0328 or mreilly@bellsouth.net
- ▲**MASS—North Shore:** Bob Hicks ☎ 508/774-0906
- ▲**MASS—South Shore:** Riders wanted for casual, fun, year-round rides. Dave Ricardo ☎ 781-826-9003
- ▲**MASS—Boston:** 2nd Sat/Mo 10am at Herter Park public Theater (1175 Soldiers Field Rd.) Questions? George Reynolds 603-432-7327.
- ▲**ME—Falmouth Recumbents** ☎ 207/781-4637 (VM)
- ▲**MI—MHPVA:** Wally Kiehler 1027 Hawthorne, Grosse Pt. Woods, MI 48236 or Kiehler@Juno.com, www.lmb.org/mhpva
- ▲**MI—SE:** Wolverbents 2nd Sat @ 9am—Willow Metropark Pool shelter, @ 9am (Mar-Nov). Bob Krzewinski ☎ 734/487-9058, BobMich@compuserve.com. www.lmb.org/clubs/wolbent.htm
- ▲**MN—Minneapolis:** MnHPV 2nd Wed @ 7pm Lk. Nokomis Com. Ctr. Ride 6pm - Mar.-Oct. Mark Stonich ☎ 612/824-2372
- ▲**NE—Omaha: County Cruisers** Armand Gibbons ☎ 402/553-4472 or www.nfinity.com/~armandg.html
- ▲**NM—Albuquerque:** Absolutely Recumbent ☎ 505/345-7736
- ▲**NJ—Metro Area:** 3rd Sun/Mo—Geo. WA. bridge (NJ side) John Tetz ☎ 973/584-6481 or jgtetz@aol.com
- ▲**NY—Rochester:** Hank Walck ☎ 716/265-4287 or Michael Brisson ☎ 716/461-5084 or Dave Larson ☎ 716/235-4116
- ▲**NY—Western:** Monthly starting March 20th, 3rd Sat, 2pm@ Bikeway on N. Forest Rd.(N. of Maple Rd.) at the Amherst Audubon Golf Course, Ed Weiss ☎ 716-634-9660 www.bluemoon.net/~padelbra/the\_recumbenteers.htm
- ▲**OR—Portland:** Jeff Willis ☎ 360/254-3736 or jwillis@pacifier.com
- ▲**PA—Philadelphia: R'bent Cyclists** John Hunka ☎ 609/662-5180 or hunka@astro.ocis.temple.edu
- ▲**TN/GA/AL:** Easy Chair R'Bent Bikes ☎ 423/886-1499 or easychairbikes@att.net
- ▲**TX—North:** 4th Sat/Mo www.rbent.org
- ▲**TX—Houston:** 2nd Sun.@ Katy HS. Pat ☎ 281/347-3627.
- ▲**UT—Riverdale:** Brett Rodgers ☎ 801/399-2447
- ▲**WA—Snoho Co. AARC:** (All Rec. Riders Club) 3rd Sat/Mo Harvey Field in Snoho Cty. ☎ 206/632-6955 or bradrick@serv.net or ☎ 206-632-6955.
- ▲**WA—Seattle Area:** NW Low Down & Laid Back R'bent Riders Currently looking for new rider group leader. Contact: DrRecumbnt@aol.com
- ▲**WA—Spokane:** 2nd Sat/Mo @ 9:30am —SIRTI pkg lot E of Fairfield Inn, E/Z RIDER Cycles ☎ 509/725-4249 or jmangini@famrc.org
- ▲**WA—Vancouver:** Jeff at jwillis@pacifier.com or Gale ☎ 360/891-1947
- ▲**WA—SE: WRTW2\*** Two Wheeled, R'bent Riding Trombone Teachers of Walla Walla. VonBruno@bmi.net
- ▲**WASH. DC AREA: W.H.I.R.L.** 8am Sat (9am-winter) @Viers Mill Rec Center. www.recumbents.com/whirl
- ▲**WI—Madison:** Last Sat/Mo @ 9am—State St. corner of the Capitol. May-Sept. mfox@lss.wisc.edu
- ▲**WI—CANADA** (Calgary, Alberta Sol Candel. ☎ 403-250-7588 or mail@moviepostershop.com

DO YOU HAVE A RIDER GROUP? LET US KNOW ABOUT IT!

## Coventry Cycle Works

Oregon's Recumbent Headquarters

- Lightning
- Easy Racers
- Vision
- Haluzak

2025 SE Hawthorne  
Portland, Oregon 97214  
Tel. 503/230-7723  
covcycle@teleport.com



## ABSOLUTELY RECUMBENT

Recumbent Bicycle  
Sales & Service



'Bent Kokopeli Jewelry



4924 4th St. NW.  
Albuquerque  
New Mexico 87107  
Tel. (505) 345-7736  
absolutelyrecumbent.com



Fairings and mounts  
for most recumbent  
makes and models,  
uprights and  
experimenter kits



Helmet-cam mounted on Keith Philpott's '98 V-Rex (P-38 mount)

# ZIPPER®

## ROAD FAIRINGS

PO Box 14

Davenport California 95017

Tel. (831) 425-8650

http://www.bikeroute.com/ZZip/ Fax: 831/425-1167  
Hotline • 1-888-WINSCRN (946-7276)

# PEOPLE MOVERS NEWS

<http://www.recumbent.com>

## SPECIALS-

NEW-'98 Vision R40 XTR hubs,DX frt derail,SRAM 9.0 rear derail,UN52 bb,LX crankset,Ritchie headset, forged Ritchie Logic canti's only \$949

-----  
'98 Windcheetah, like new, \$3999

'99 Grnspeed tandem trike-63 sp,hyd disc brakes, S & S couplings, \$7000, available 7/99

-----  
'99 Grnspeed trike- avail 5/99

'99 Linear LWB, new, cosmetic blem \$1099

'98 Rotator Tiger,new,\$1199

**PEOPLE MOVERS ACCEPTS  
VISA, DISCOVER, AMEX and  
MASTERCARD**

**ENCYCLOPEDIA '99 and VIDEO  
HAVE ARRIVED!**

The newest edition of Encycloepedia just arrived last week. A great video is included with each book. Price is \$30 plus shipping. ORDER yours today.

**KEEP UP TO DATE** on what's happening at People Movers. Visit our website often for information and special deals. The address is:

<http://www.recumbent.com>

You can contact us by writing to:  
linda@recumbent.com or  
jim@recumbent.com

**Bag for TOUR EASY handlebar**

Now available is the new handlebar bag for the Tour Easy. The bag fits neatly between the handlebars. It comes in red or black. Cost for either of these great bags is just \$36.95!

**JOIN THE PEOPLE MOVER POINT CLUB**

Here's how it works: Each receipt you get from People Movers will have a point number on the bottom. Save points and redeem them for selected People Movers merchandise. Be sure to let us know when you make a purchase that you're a point club member. Only rule is that the points must all be under the same name when redeemed. Merchandise items subject to quantity availability. Call for details.

## NEW LIGHTNING

### THUNDERBOLT HAS ARRIVED

JUST IN-- Lightnings newest bike. 26" x 20" wheel combo, SRAM shifters, v-brakes, great Lightning seat. All for just \$849.95

Mark your calander for the '99 Recumbent Ride at People Movers. We will announce the exact date on our website or you can contact us during business hours.

Kryptonite Pocket Locks-Weigh just 3 oz., 3.75 feet long, retractable cable, lifetime warranty \$9.95 each, 2/\$17.99. or 3/\$25 and get a free Speed Lever tire tool (\$7.95 value)

-----  
Power Bar Energy Pack- A 21 oz water bottle with 3 power bars and power jell, only \$6.99

-----  
White Lightning 9.5 oz, just \$10.79

-----  
Air Zound II refillable air horns (use your tire pump) only \$24.95

-----  
Spinnies (attractive whirly things for your flag pole. \$3.99-\$7.99)

-----  
Video on how to build a coroplast fairing for your bike \$16.95

-----  
S.S. thermos with leather case. Fits in water bottle cage. \$18.99

-----  
6 1/2¢ per minute long distance calling cards. This is CHEAP. \$5, \$10 or \$20 cards.

-----  
People Movers Tshirts \$12.50 each

-----  
Embroidered PM baseball cap \$9.99 each

### BIKE SALE ESCROW SERVICE

Protect yourself when buying or selling a recumbent. Why risk losing hundreds of dollars? Call People Movers for details.

**PEOPLE MOVERS IS OPEN SIX  
DAYS A WEEK. WE MAIL ORDER  
PARTS & BIKES EVERYWHERE.  
LOCATED JUST 3 MILES EAST OF  
DISNEYLAND AT 980 N. MAIN ST  
ORANGE, CA. 92867**

**CALL: 714-633-3663**



# R E C U M B E N T C Y C L I S T N E W S

## ORDER FORM/SELF MAILER

You're pedaling down a quiet country road. The wind gently blows in your face as you slice through the wind with your aerodynamic recumbent bicycle. Your eyes have a direct 180° stereo surround sound view of the scenery—instead of the front wheel. Your body feels good—no pain. Your arms and wrists are totally relaxed—as they do not support your weight on a recumbent. Your neck and shoulders are relaxed—because you are looking straight ahead. Your bike seat offers full ergonomic back support—and total comfort. Your hind quarter wonders what kind of a seat this is and why there isn't pain, chafing and numbness. Could this be real? Could it really be bicycling?

The recumbent experience is totally unique in the bicycle world. There are racers, in streamliners, tourists riding across the country, average folks riding for fun or fitness and club rides and somebody's mom or dad getting back on a bike after 20 years. The one thing they all have in common is comfort.

You know that you have hit upon something great when you can ride 5, 25 or 125 miles and be comfortable the entire ride—seated on your hi-tech recumbent bicycle. Bicycle industry designers continue trying to reinvent the upright bicycle—with limited success. Recumbent designers may have different ideas on geometry, style, look and performance—but most know what the bottom-line is—COMFORT!

We don't care who you are, what you do for a living, where you live, what color or sex you are, your height or weight, what kind of a car you drive, how little or how much you ride—we are accepting of all people with an interest in recumbent bikes. And for those that are not—we'll try to convert you in a subtle way—through our passion for recumbent bicycles.

**Recumbent Cyclist News** is the voice of the recumbent world and has been since 1990—more than 50 issues! We publish bimonthly and issues are mailed worldwide. We are a magazine written and produced by and for recumbent bicyclists. Why not let us help you to learn all about recumbent bicycles and stay in touch with the recumbent world!

**In each RCN issue you will find**—44-68 8.5"x11" pages full of the following:

- ✓ **Editorial License:** Publisher Bob Bryant's view of the state of recumbency...as well as his RANTS!
- ✓ **Letters to the Editor:** Have a question or comment? This is your soap box. If you disagree with us, let us know. The more voices we hear—the better!
- ✓ **News, rumors, announcements, and gossip:** The new BikeE Air Tech, \$650 BikeE CT and Trek 'bent... RCN readers heard it first.
- ✓ **Road Tests, Interviews & Critical Reviews:** We are in the unique position to try out and compare all of the different models available in North America today. And we'll tell you all about it—good, bad, indifferent or exceptional!
- ✓ **Recumbent Touring Narratives by readers**
- ✓ **Technical Reports and Advice**
- ✓ **Reader Written Articles:** Bike impressions, road tests, tour narratives, rider-tips and even news and rumors.
- ✓ **Reader How To Articles:** Fairings, chain tubes, modifications, etc.
- ✓ **'Bent Events Calendar, Race & Rider Group Listings:**
- ✓ **ReCycle Classified & Want Ads:** We have the world's largest recumbent classified ad section.

This is your publication. Tell us what you want. We accept paid advertising though it is not our primary source of revenue. RCN is bankrolled by us, you (readers) and dealers/manufacturers (who advertise). We *DO NOT* accept automobile, cigarette or alcohol advertising. We are not supported by \$20,000+ per insertion car ads. We wonder how some magazines can be voices for bicycle advocacy by taking many pages of expensive car ads.

RCN is the world's recumbent gossip & rumor monger. There aren't enough printed pages to fill in all that he has to say. Get the straight scoop. Enthusiasts love him and manufacturers fear him....and some don't talk to him anymore.... Though we see and hear all—and report it in Recumbent Cyclist News.

Viva Recumbency,  
Robert J. Bryant  
Publisher Recumbent Cyclist News

### ■ RCN BUYERS GUIDES & BACK ISSUES

Our most recent recumbent buyers' guides/issues were printed in the first half of 1998 with a 1999 update (RCN#49). The back issues below are in stock and available as of April 1999. See prices & packages below:

- RCN#51** Road Tests on the Greenspeed GTS Trike; ICE Trice trike; ZOZ 26 FWD; Venice to Rome; and the Cannonball Chronicles (avail. May 1).
- RCN#50** OUR 50th ISSUE! Look for reviews of the BikeE NX and CT; as well as Brompton folding recumbent; Cambie Recambini; and an interview with BikeE's Paul Atwood.
- RCN#49** 1999 Season Preview—an companion update to our 1998 Buyers Guide Series (RCN#43-46). Plus reviews on the new Vision R40 with updated geometry, the Bike Friday Sat R Day and the new Trek R200 SWB recumbent.
- RCN#48** Easy Racer Gold Rush Replica test.
- RCN#47** Homebuilder Special Edition—A must read!
- RCN#46** '98 Buyers' Guide (BG): Trikes/Tandem; Dragonflyer trike test.
- RCN#45** '98 Long wheelbase (LWB) BG; Tour Easy .
- RCN#44** '98 Short Wheelbase (SWB) BG; Rans SWB.
- RCN#43** '98 Compact BG; 1998 Awards; How to buy a...; BikeE AT test.
- RCN#42** Bob's Slumgullian Tour article (Angletech & Rans)
- RCN#41** Angletech Altitude; Haluzak Hybrid Race; HPM Tritan.
- RCN#40** Linear Compact Mk III; S & B SWB; Turner T-Lite.
- RCN#38** 1997 Buyers Guide (double issue/counts as two issues)

### ■ SAMPLE ISSUE/BACK ISSUE PRICES

- \$4 One time sample issue (\$6 outside the USA).
- \$8 Any 1 back issue (\$10 outside the USA).
- \$20 Any 3 back issues (\$24 outside the USA).
- \$30 Any 6 back issues (\$40 outside the USA).

### ■ RCN SPECIALS (US only)

- \$12 HOMEBUILDER SPECIAL EDITION** (RCN#47) & Current Issue.
- \$20 SAMPLE SUBSCRIPTION**—The three most recent RCN issues.
- \$25 RCN 1998/99 BUYERS GUIDE PACK**—RCN#43-46 ('98 BG's) + a copy of the '99 Buyers' Guide Update/Season Preview issue RCN#49.
- \$99 NEW ENTHUSIAST SPECIAL**—The 4-1998 Buyers Guides (RCN#43-46) + RCN#38 ('97 BG) + 3 back issues of your choice + a 2-year/12-issue 1st mail RCN subscription. (\$125 value).  
*Allow up to 3 weeks to receive specials/back issues*

### ■ HOW TO SUBSCRIBE TO RCN

Subscribing is easy—just fill out this form, select the options that you would like, enclose payment and mail.

### ■ 1999 SUBSCRIPTION RATES

- \$40 One Year/6-Issue First Class Mail Sub.**
- \$70 Two Year/12-Issue First Class Sub.**
- \$60 One Year/6-Issue Worldwide Airmail** (Outside of the USA).\*
- \$100 Two Year/12-Issue Worldwide Airmail** (Outside USA) (Save \$15).\*

\*Air Mail Orders must be paid in US funds via cash or bank draft.

NAME .....

ADDRESS .....

CITY/STATE/ZIP+4.....

PHONE/EMAIL.....

### ■ PLEASE READ

RCN is published bimonthly, 6 times per year. All new subscriptions/issues are mailed FIRST CLASS. Please allow 2-6 weeks for your first issue of RCN. Subscriptions start with the NEXT published issue of RCN unless otherwise noted below. Please start my subscription with RCN#\_\_\_\_\_.  
Check if a renewal:\_\_\_\_\_.

■ **MAIL ORDERS TO:**  
RCN, PO Box 58755  
Renton, WA 98058, USA

# We Want This Page Back.

We've designed this page to double as a no-waste, do-it-yourself recycled envelope. Please use it.....to sign on as a Recumbent Cyclist News subscriber, order a back issue, buyers' guide or to simply to let us know your ideas

Please turn page to find order form



Place  
Stamp  
Here



Recumbent Cyclist News

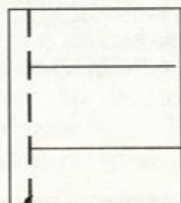
P.O. Box 58755

Renton, WA 98058-1755 USA

- Subscription
- Renewal
- Back Issue Order
- Classified ad
- Letter to the Editor
- General Correspondence
- RCN Article Submission

## Just Cut.....Fold....Tape....and Mail!

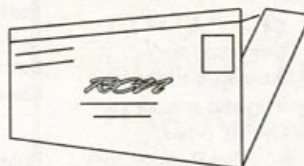
This page



1. Cut along the dashed line.



2. Fold end flaps first..

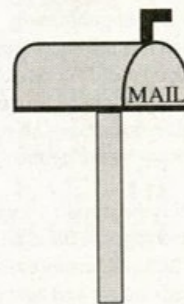


3. Fold along centerline.



4. Insert your check or letter.

5. Fold top flap and tape.



6. Stamp and mail!

**Don't Forget to Tape the Edges**



## Engage!

Test-Ride the new Trek R200 today

*Call or stop in...*

# Recumbent Headquarters\*

Yes - we're open seven days a week!  
Yes - we do take your trade-ins!  
Yes - we want your business!  
Yes - we can ship anywhere!



**Store Hours: Mon thru Fri 10 to 8  
Saturday 10 to 5, Sunday 12 to 4**  
*We absolutely want to put you  
on the best recumbent for you.*

*E-mail: [wheelweb@execpc.com](mailto:wheelweb@execpc.com)*

## Wheel & Sprocket

*www: [wheelsprocket.com](http://wheelsprocket.com)*

- Number 1 Rans dealer in the nation
- Number 1 Easy Racer dealer
- Nationally acclaimed recumbent sales and service leader
- Huge selection of 'bents in-stock
- Road Tests available

**6 WISCONSIN LOCATIONS**  
**Recumbent Headquarters**

\*Hales Corners Location  
5722 S. 108th Street  
414-529-6600

**All the top brands:**  
Rans, Linear, Bike-E, Vision,  
Easy Racer, Longbikes (Ryan),  
Haluzak, EVO, Chase III  
and the **New Trek R200!**

**Most Fun! Best Deals!**

**Toll Free 800-362-4537**

**Satisfaction Guaranteed!**

# You Have Arrived... *The Gold Rush*

*from Easy Racers*



## EASY RACERS INC

Easy Racers, Inc.  
PO Box 255  
Freedom, CA 95019

Laid Back and Loving it!  
Urgent. Call Today!  
Tel. 408-722-9797 Fax 831-768-9623

Guaranteed opportunity  
to save your health.

Tooeasy1@aol.com • www.easyracers.com



*RCM*

P.O. Box 58755  
Renton, WA 98058-1755 USA

Address Service Requested

BULK  
U.S. POSTAGE  
PAID  
PERMIT NO. 38  
RENTON, WA

If the top line of your label says "51, 52 or 53 LAST ISSUE" it's RENEWAL TIME