

Recumbent Cyclist News

The Recumbent Enthusiasts' Newsletter - Since 1990 - #098 Jan/Feb 2007



RANS has several new CF bikes for 2007. This is the new \$995 Dynamik that weighs 26 pounds (it lost 4 pounds this year), see page 17



Ready for something completely different — the Cruzbike, see page 20

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The 2007 WizWheelz Zoomer has a fixed seat base, reclining seat back, aluminum frame and direct steering — all for \$1699!

2007 Season Preview

There are several new trends in the recumbent world as we roll into 2007. I went to the Interbike trade-show in September, and I'm afraid there just wasn't much recumbent buzz. With Burley and Bacchetta *NOT* showing bikes, and others not attending the Dirt Demo, things were a bit quiet. However, since the show, we have been following rumors, buzz and new product information to give you the most up to date news possible.

This article has three parts: I. Trends, II. Updates by Manufacturer, III. News & Rumors at the end.

I. TRENDS

The hottest trends are as follows:

TRIKE TRENDS

WizWheelz new Zoomer heats up the sport trike competition with a new aluminum framed, direct-steering model. The Zoomer has a unique seat that has the base fixed to the frame, but with a reclining back. Greenspeed has a new delta trike prototype — a 3x16" model to be priced at under \$2000. Catrike has their new go-fast "700" model as well as the new Trail and Expedition announced just before we went to press.

LONG WHEELBASE TRENDS

With the success of the CroMo RANS Stratus XP, this progressive LWB builder has added two new models. Both are lighter weight and more expensive. The XP AL is aluminum and the XP Ti is titanium speed bikes. Also new for 2007 is the LWB V3 — a more refined F26 (dual big-wheel V2). Over at Easy Racers, rumors of a carbon-fiber Gold Rush persist, most most of the Easy Racers buzz surrounds the new Javelin — a stick frame, high bottom bracket Tour Easy that is more affordable than their other models.

SHORTWHEELBASE/HIGHRACER TRENDS

RANS has lowered the price of the

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Recumbent Cyclist News

Recumbent Cyclist News was published by Bob & Marilyn Bryant from 1990-2007, 101 issues. RCN was closed in December of 2007 when it became no longer financially feasible to publish a print newsletter. bryantrj@gmail.com

Editorial License

Recumbent Tribes & RCN Changes

by Bob Bryant, Publisher recumbentcyclist@gmail.com

RECUMBENT INTERNET TRIBES

Recumbent bikes are so diverse: SWB, LWB, highracers, trikes, FWD and crank-forward. These types of bikes cross the spectrum of cyclists from casual neighborhood riders, commuters, tourists to RAAM racers—these groups are what we describe as recumbent *tribes*.

Recumbent riders in 2007 have many choices of online hangouts where the various tribes congregate. The *Bentrideronline forum* is the place where many tribes come together to chat and debate. BROL's Bryan Ball does a fine job policing his site — a job that I don't envy.

Many tribes are brand-specific: *Catrike* and *Bacchetta* have active forums. In contrast, some are design-specific (IHPVA's trike list and crankforward.com).

The LWB tribe (Easy Racers & Bentrider forums) seems to primarily about touring and casual riding. Some performance riders find their way to the Easy Racers or RANS dual-big-wheel LWB, but they don't seem to talk about it as much as the SWB/highracer enthusiasts.

SWB performance enthusiasts seem to be drawn to the *Bacchetta* forum with its emphasis on speed superiority — with a heavy dose of attitide.

The casual trike and crank forward riders are their own tribes — which are uniquely still based on COMFORT rather than performance. (Trike riders hang out both at *Bentrideronline*, the *Catrike* forum and *IHPVA.org*'s *trike list*. CF riders at *Crankforward.com*).

The China-Mascot tribe (Actionbent Yahoo group) is about the bargain recumbents purchased at non-traditional virtual Internet distributor that imports the bikes from China. These require a DIY (Do It Yourself) approach — as they offer little in the way of set-up and support.

Well, there you have it. You too can be part of whatever tribe you wish and chat about whatever brand, make, model, or style that strikes your fancy. It would be great if we could be more respectful of one another — after all we're all part of the same 1/2% of cyclists. ◆

RCN CHANGES

2007 marks our 16th year in print as we move toward our 100th issue. RCN started as a fluke back in 1990 — because nobody else was writing about recumbent bikes. It's difficult to believe we've come this far.

RCN became a full time business about ten years ago. We thrived through the late 1990s as THE recumbent resource. As the Internet evolved, recumbent information went from being difficult to find, to being readily available online. Sorting through this information, reporting facts and opinions, offering critical analysis, and supporting our industry is where we come in. We'd like to think this is still a viable mission. However, magazines in general are finding it more and more difficult to compete with the Internet, and RCN is no exception. We had our highest grossing year in the late 90s (twice what we do now). In the past few years we've seen our printing and mailing costs skyrocket, and our sales decrease. We've also lost advertisers this year. RCN is already too expensive — so we can't raise prices.

We do have an online presence with our blog (recumbentcyclist.blogspot.com) which gets about 7000 hits per month. To add more value to RCN print ads, we run fixed position text link ads for our print advertisers. However, the blog doesn't make any profit. A fully online RCN would not be a viable option for us at this time.

We appreciate that so many readers love RCN, but we really need to increase our revenue and grow our readership this year. Here are ways that you can help:

- Buy a subscription for a friend
- Renew early/consider first class
- Advertise your recumbent business

There may be other changes as we become more efficient. It has been my pleasure to write for you these many years. With your support we hope to publish for years to come. Viva Recumbency!

THE CLASSIFIED ADS HAVE BEEN REMOVED FROM THIS E-EDITION.

Letters

Please write us. Letter limit is 300 words (or write an article). We edit for clarity, content and space limitations. bob@recumbentcyclistnews.com



LIGHTFOOT RESPONSE

our review of our most popular Lightfoot trike, the Greenway model, was fair and insightful. I thought that the perspective that you brought as a discerning potential user was very valuable; for the reader and potential buyer of course, but also for us as manufacturer. We are working to refine every feature of our cycle, even ones that weren't mentioned in the article. We are already upgrading the shifter that was fairly criticized. Other improvements will be seen on 2007 Greenway.

The Greenway may not be the right model for someone who needs a more aerodynamic riding position for fast highway riding, or the person who needs a folding model for multi-modal intra-city use. If we, the manufacturer, push the model too far, in order to accommodate a new or vocal demographic, we risk loosing the original demographic; the members of which may start to find their former favorite model now too low, too tall, too big, too small, too changed.

Though continuously refined, the Greenway hasn't changed substantially in 5 years and probably won't anytime soon. The Greenway remains our most popular single model; this type of cycle obviously is meeting the needs of an important demographic. Potential "improvements" may not influence the demographic that now patronizes this model. They seem to be content with our present TIG-welded round-tube front end and MIG-welded square-tube rear end, and apparently accept the 52 pound weight as adequate compensation for all that capability and durability.

There are other important demographics out there of course, with their own priorities. Knowing that there is a sizable demographic of people looking for sporty, light, aerodynamic trikes; most manufacturers are working to meet that demand. An attempt by Lightfoot to meet that demand would demand a substantial departure from the Greenway form, because the Greenway's niche is more that of a pedal-powered "vehicle."

What would Lightfoot's emphasis on safety, utility, capability and adaptability look like when applied to light-and-sporty? Well, we will just have to keep our eyes open and see. The world of recumbent cycles and human-powered vehicles is constantly evolving. Thanks for your work as tour guide.

Rod Miner Lightfoot Cycles Inc.

TRIKER 72 COMMENTS (096 trike crash letter)

As a twelve-year rider of recumbent bicycles and a one-year owner of a tadpole recumbent trike, I was disturbed by "Triker 72's" account of his horrific accident. He lost control while emergency braking on a high-speed downhill (all too easy to do, see below), his foot slipped off a pedal, and his leg was carried

RCN 097 CORRECTIONS

Trikes, Trikes and More Trikes . . .

Regarding Washington State trike dealers, Angle Lake Cyclery in Seattle sells Greenspeed, HP Velo Scorpions and Sun trikes.

under the trike, breaking bones in both ankle and lower leg. I like my Greenspeed X-5 trike very much, but I can see how easily this could happen TO ME. In fact, I think this story conveys two important trike safety lessons for all of us.

First, while it may be okay for persons on most recumbent bikes, with their higher seat positions, to use platform pedals without foot retention systems (or cross-strap foot-retention systems like PowerGrips, or easy-to-click-out-of clipless pedal systems), A tadpole trike rider needs fail-safe foot retention. The trike is low, the seat-back usually reclined, and if the foot slips off at speed and hits the pavement it is certain to be swept back and horribly torqued under the trike's cross-member. Triker 72 will be setting off metal detectors at airports for the rest of his life. Whatever foot-retention system a cyclist uses on a low trike needs to really, really work.

Second, Triker 72's foot came off his pedal when his trike swerved drastically under hard emergency braking, and this chronic trike "brake-steer" is a bigger and more basic safety problem. Every tadpole trike I've ever ridden had some degree of brake steer-tendency to veer suddenly toward one side while braking. In my experience, this is not much of a problem in low-speed

... Letters continued on page 22





The new RANS V3 comes in Ti and Aluminum.



The RANS Stratus LE is a greaty buy on a classic LWB at \$1299



The 2007 RANS Rocket is back under \$1000 and a real deal.

Note the new bars.



This is the new Hase Kettwiesel Aluminum.

Rocket, which is now a best buy at under \$1000. RANS has discontinued all highracer models except the Enduro. "We have no reason to build highracers anymore" — as RANS' Randy Schlitter motions towards his new titanium and aluminum V3 and Stratus XP Titanium models in his Interbike display.

The highracer buzz has quieted somewhat this past year. Any new dealer who attended Interbike would have seen almost no highracers present at the show. Despite this, we've heard that Bacchetta has had excellent sales year, Volae's continue to be popular (they sell direct and don't display at Interbike) and there are many fans discussing highracers over at the Bacchetta forum.

A BAD TREND: LACK OF AFFORDABLE MODELS

Anybody looking for an affordable and/or user-friendly LWB or CLWB recumbent will have fewer models to choose from in 2007. Cannondale discontinued their Bent I & II, RANS discontinued their Tailwind and Burley their entire line of recumbents. We expect the hottest entry level recumbents to remain the Sun EZ1, EZ Sport, RANS Stratus LE and perhaps Cycle Genius. The Bacchetta Agio has also become more appealing with the recent demise of the Burley line. The most enthusiast oriented entry-level models are the RANS Rocket and Bacchetta's Cafe. Both have somewhat less user-friendly higher bottom brackets.

CRANK-FORWARDS (CF)

These relaxed riding, comfortable, and more affordable bikes have definitely increased in popularity. The RANS Fusions get top billing at RANS recently redesigned new website. RANS has five new CF models (see below) and new significantly lighter aluminum frames. A \$995 RANS CF weighs just 26 pounds — which is much lighter than any comparably priced recumbents.

In the mainstream CF world, Electra Townies have become popular. There are several models including 3-, 7-, 8-, 21- and 24-speed models with 26" or 700c wheels. There are also custom fat tire cruiser CF models. While Cannondale discontinued their recumbents, they have a line of three Daytripper CFs, an 8-speed derailleur model, 8-speed internal hub model and the top of the line DualDrive 24-speed model with a headshok. Sun also has a 700c hybrid 21-speed model that retails for under \$400. Raleigh has reportedly discontinued their Gruv, and we couldn't find any new Giant or K2 CF info. I am certain CFs are outselling recumbents, but most are \$500 recreational models. www.crankforward.blogspot.com

II. 2007 UPDATES BY MANUFACTURER

ANGLETECH

New for 2007: While Angletech is primarily a custom spec shop (custom components on stock frames), they are also the exclusive marketer of the **QuadraPed** trike (hand and foot crank) and have another interesting new model coming soon. Some of their most popular models have been custom spec and painted RANS Fusions and Stratus XPs and Challenge recumbents.

Angletech is big into **Challenge** recumbents this year. Owner Kelvin Clark just got back from a trip to the factory and is very excited about the new trike (see Kelvin's "*First Ride*" story on his trike web page) and mid-bottom bracket height SWB models.

Angletech custom spec models are often more expensive than factory spec bikes, this isn't always the case. For 2007, you can buy an Angletech spec **RANS Stratus XP AL HO27** (\$2899) or **XP Ti HO27** (\$3999) for *LESS* than the RANS spec version.

If you're near Woodland Park, Colorado, make an appointment for Angletech's Recumbent 101 demo.

www.angletechcycles.com

BIG CAT/CATRIKE

New for 2007: The Catrike 700 (\$2750) is a new high performance trike from Catrike. The trike has a 700c rear wheel, 349mm front wheels, a 2.25" ground clearance, a SRAM SX5/X-7 drivetrain, weighs 33 pounds. Catrike also has a new CNC headrest that fits the 700 and other models. Catrike builds all of their frames in Florida, USA.

In a holiday surprise, Catrike unveiled two new models just before Christmas. The **Trail** (\$1750) is a new entry level model has a wider track, higher seat, more ground clearance and has 3x20" wheels. The Trail has a SRAM SX5 drivetrain with Avid SD5 disc brakes and weighs just 31.75 pounds. The Trail comes in white, yellow, red, blue. lime, black and optional sparkle colors.

The **Expedition** (\$2550) is a 26"/20" touring model with SRAM X-7 parts, Avid 7 disc brakes, 4.5" of ground clearance and stock Schwalbe Big Apples.

Other Model Updates: Pocket 20"/349mm (\$2150); Road 20" 3x 20" 406mm (\$2250); Speed 451mm 20"/346mm 16" (\$2350). All models are also available as rolling chassis. All models are direct steered (no linkage) with disc brakes. www.catrike.com

CRUZBIKE

New for 2007: This new bike manufacturer started out selling front-wheel-drive (FWD) kits that bolt onto "Y-frame" mountain bikes. For 2007 they will offer three models of front-wheel drive SWB. They now have a new USA headquarters and sales team. Sofrider/Freerider (\$995): Front-wheel drive SWB 8-speed recumbent with aluminum shell-type seat and either T-bar (Sofrider) or chopper bar (Freerider) OSS.

Other Models: Silvio (\$2000 frameset): This new model is sold as a frameset only, but can be built up as light as 22 pounds. It has a carbon-fiber rear suspension and headshock type front suspension. www.cruzbike.com

GREENSPEED

New for 2007: A Greenspeed delta trike "**Frog**" is coming! The price will be \$2000+/-. The prototype was shown at Interbike and has a RANS seat, linkage

USS, mechanical disc brakes, a mid-bottom bracket height. The rear end has a proper differential rear end. Greenspeed also has small frame size GT and X-series trikes, and they are continuing work on their quad and velomobile.

Other Model Updates: GT3 folding CroMo USS tadpole with drum brakes (\$2595): A popular folding CroMo tadpole trike with drum brakes (no changes for 2007). Canted in wheel model is the X3 (2845). GT5 (\$2845): Same as GT3, but with updated specs and hydraulic disc brakes. Canted in wheel model is the X5 (\$3245). Custom shop touring models are the GTO, GTR, GTE, GTS, GLO and GTT. Custom shop sport models are the SLR, X7 and GTS. www.greenspeed.com.au

HASE

New for 2007: Kett Weisel (\$2800): The German trike maker unveiled an aluminum delta. The design has been refined with an updated seat adjustment mechanism and the bike now sports a standard triple 27-speed drivetrain. The aluminum frame reduces the weight by two pounds! www.hasebikes.com

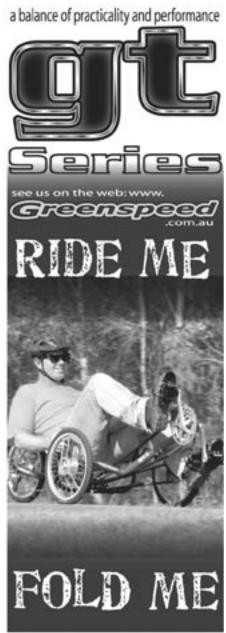
HP VELOTECHNIKS

New for 2007: A second trike model will be introduced for 2007. The **Scorpion FX** (\$3090) is a folder, has a higher seat and a lower bottom bracket than the standard **Scorpion** (\$2870).

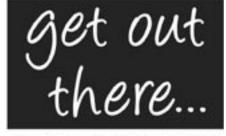
Other Model Updates: All models will be outfitted with the quick release seat developed for the Scorpion FX folding trike. HP Velo will also use a Sugino XD standard crankset in place of the the previous Tracer model. Short 152mm cranks are also available. An optional Spinner AL suspension fork saves 300 grams, available on two-wheeled models. An optional SON Dynamo with a stub axle mount for the Scorpion is also now available. Prices are as follows: Speedmachine (\$2890), Street Machine Gte (\$2290), Grasshopper (\$2290) and Spirit (\$1690). Prices do not include shipping, duty or sales tax. www.hpvelotechnik.com

LINEAR

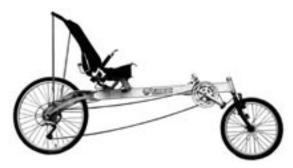
New for 2007: The Linear Limo 3.0 (\$1995 + \$125 US S/H) will soon be available in three sizes. This latest update of the classic extruded aluminum LWB USS recumbent have a new rear frame design, will be more durable, have a rear disc brake, will have updated specs and







toll free 866-314-4323



The 2007 Linaer LWB with redesigned rear stays. See linearrecumbent.com for more information.



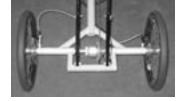
The Greenspeed X-series folding trikes are another RCN reader favorite. This is one of the sweetest trikes we've reviewed.



The Aeroride Velomobile



This is the prototype
Greenspeed Frog. Note the
proper differential (right)
designed by Greenspeed's lan
Sims. This new 2007 model
trike will have 16" wheels, disc
brakes, a telescoping rounded
square section frame.



hand built wheels (Shimano Deore/Sun CR18).

Other Model Updates: Prototype testing is being done on a new dual 20" SWB USS model that weighs 30 pounds and is priced at less than \$2000. There may also be a folding option. www.linearrecumbent.com

RANS RECUMBENT

New for 2007: RANS has introduced five new recumbents for the new season. The V3 Ti (\$5300) is a 21.5 pound USA-built (by RANS) titanium LWB. This design is the latest evolution of the V2/F26. The handling is more refined (big wheel-specific) and the frame design is optimized to require no power-side chain idler. The bike has a mid-riser and B-37 bars. Three sizes are planned and your choice of handlebars. The bike comes with an M5 shell or RANS Z seat. I rode this model at Interbike and loved it. V3 AL (\$3500) The V3 aluminum weighs just one pound more than the Ti version. **Stratus XP Ti** (\$5500): This is a USA-built titanium Stratus XP that weighs just 22.6 pounds. The bike can be outfitted with wheel combinations of 26" 650c and 700c. You can have chopper bars or B-37. The bike has lightweight components and road caliper brakes and your choice of a standard or Z seat. The color is Ti-Amber and the logos are etched onto the frame. I rode this very sweet new model at Interbike and loved it. Stratus XP AL (\$3500): This is the new aluminum RANS Stratus XP, similar set up to the ti bike, but less expensive. Stratus XP (\$1995): The steel XP now comes in four sizes, has a 700c brake bridge with multiple brake, wheel, handlebar and tire options. Formula HD (\$1895): This new model will have a capacity of 325 pounds! It's disc brake equipped, with tandem wheels, kevlar tires and an over-built aluminum frame. The Force 5 Enduro (\$1895) gets a new sparkle blue paint and Kenda Komfort 1.95" tires. This is the only highracer in the 2007 line. The **Rocket** (\$995) is back for 2007 with a new lower price, and a forward facing stem with B-39 handlebars. Colors are red and silver.

Other Model Updates: The Stratus LE (\$1295) is back unchanged for 2007. The Formula 26 is back for 2007 unchanged. V-Rex (\$1800) just gets a new price. The classic Stratus (\$1700), Formula LE 26/20 (\$1550) will be available for much of 2007, but may be phased out. The standard Screamer is back for 2007, but the Screamer Sport is gone. The Seavo/Seavo TR tandems are back for 2007. The Tailwind compact is no longer available.

Other News: The 3rd generation Z seat is saves 3 pounds (over the standard RANS seat) and can be adapted to several models. The Z seat has a new pan frame and neoprene seat edging. Other new products include a new front cable organizer and Memory Loc which doubles as to keep your seat in position will also become available this year. www.ransbikes.com

RANS CRANK FORWARD

New for 2007: RANS has updated many CF models and integrated lighter weight aluminum frames. Fusion (\$950) is now 1.5 pounds lighter (26 pounds) with its new aluminum frame and comes in three colors, Ti-Rose, Aqua green and yellow. Gearing is now lower with a 22/32/44 Truvativ Blaze Crankset (thank you!). The Cruz (\$1100) now has an aluminum frame and is also 1.5 pounds lighter (26 pounds), has the lower gears as above and comes in Sting Ray Green and Gold.; The Dynamik also gets a new aluminum frame, lowering gearing and is now 4 pounds lighter (now 26 pounds). The Dynamik Trail (\$1395) is a new

off-road model model with an aluminum frame, standard suspension fork, 22/32/44 gearing and comes in metalic silver. The **Dynamik Pro** (\$2750) is another new off-road model This one has a longer wheelbase, weighs 26 pounds, has a front shock, disc brakes, and is painted burnt orange. The **CITI** (\$1195) uses the Dynamik frame geometry, but with a simple 9-speed drivetrain, RANS B-37 pull back bars, Schwalbe Big Apple tires and comes in metalic red and Ti-rose. The new **700X** (\$1895) has 700c wheels, a carbon cross fork, Velocity wheels, a carbon seat an aluminum frame and is painted purple haze.

Other Model Updates: The Zenetik Tour 700c model (\$1350) is back for 2007; The 19 pound Zenetik Pro (\$2695) 700c is also back; and the Dynamik Duo (\$2995) and Duo TR is the tandem CF, with improved an improved steering geometry, your choice of handlebar and painted red or sparkle blue.

More CF News: RANS is experimenting with forward curving stem risers and different shaped handlebars. RANS offers the double bend B-37 bars, and other CF owners have adapted Nitto Albatross handlebars (Angletech offers these).

SUN

New for 2007: Tomahawk (est. \$1150-\$1200): This is the Sun imported version of the Easy Racers Javelin and the only new Sun recumbent for the new year. It will be introduced mid-year.

Other Model Updates: Sun builds the best selling EZ1 (CLWB), EZ Sport (LWB), tadpoles and delta trike models. The line carries forward from 2007 with only price increases (sorry, not available at press time). www.sunbicycles.com

VOLAE

New for 2007: Tour (\$1595): The shifters and derailleurs will be upgraded to SRAM X.7 and the bike will be offered in either Sky Blue or Candy Red. Century (\$2125): New colors Candy Red or Sky Blue. **Expedition** (\$1995): New colors Iron Glimmer and Candy Red. Expedition Pro (\$2595): New colors Candy Red and Iron Glimmer. Sport (\$1695): New colors Candy Red, Volae brakes will have SwissStop brake pads. Club (\$2095): new colors Sky Blue, Volae brakes will have SwissStop brake pads and fork will be changed to Aprebic Carbon Fiber. Club Disc (\$2995): new colors Torch Blue Front brake will have SwissStop Pads and fork

will be changed to Aprebic Carbon Fiber. **Team** (\$2995): New colors Cinnamon Red, Sky Blue or Candy Red and Oval Concepts fork and brakes.

Volae has earned a respectable reputation selling recumbents direct. See our recent review in RCN 097.

www.volaerecumbents.com

WIZWHEELZ

New for 2007: The **Zoomer** (\$1699 & \$1999) has aluminum frame, narrow track and direct steering (no linkage). The seat base is part of the frame, which stiffens up the frame. The seat back is hinged at the base which allows a recline adjustment. The Zoomer will be available in March and should be a very popular model. An optional carbon fiber seat will be available this year, and fits all models except the Zoomer. A 350-watt Bionx-equipped WizWheelz model, the Power Cruiser (\$2899), is now available. A Bionx TerraTrike mounting kit can be purchased separately. WizWheelz is also developing a custom receiver hitch rack, a women's specific trike and a new headrest option

Other Model Updates: TT Cruiser CroMo tadpole (\$1299); Zoomer direct steered tadpole (\$1699 standard and \$1999 Elite); TT Tour CroMo tadpole (\$1899); TT Sport (\$2399); TT Race (\$2799); Edge Aluminum (\$3399); Edge Carbon Fiber (\$3999); and Tandem (\$4499) now has optional IPS (Independant Pedaling System designed by Vision, sold by Sun/J&B Importers)(\$499). Tour, Zoomer Elite, Sport, Race, Edge and Tandem models all get Avid BB5 disc brakes for 2007.

WizWheelz has a new factory and they have expanded into the manufacture of carbon-fiber guitars (they make one of the coolest carbon fiber recumbents — the Edge). See Their new Evatonni line of carbon-fiber electric guitars below and at www.etavonniinstruments.com. www.wizwheelz.com



This is the 2007 Trek Pure Sport crankforward. It has an Alpha aluminum frame, 21-speeds, V-brakes and sells for \$460.





The HP Velo Scorpion comes in folding and non-folding models (this is the non-folding version). We like the lower, less extreme bottom bracket height.



HP Velo's Scorpion FX folder.



This is the new HP Velo Scorpion FX folding trike going into the back of a Smart car. The FX has a higher seat and lower bottom bracket as compared to the standard Scorpion.



This is a Challenge Mistrale dual 20" "level bottom bracket" SWB.

III. NEWS & RUMORS

AERORIDER: This fancy pedal electric velomobile has a 600 watt motor, 8-speed drivetrain, a range of 19-56 miles, powered speeds of up to 28 mph and a fully weatherproof body. www.aerorider.com.

BACCHETTA: They did not display at Interbike or the Dirt Demo. There is a new Aero with 24" wheels for shorter riders and price increases on several models. www.bacchettabikes.com

CHALLENGE: This Dutch company sells recumbent world-wide, but until now has kept a fairly low profile in the USA. We're hoping to get a test bike or two for the new season. The line is made up of very high quality, made in Europe, SWB touring, ultralight performance and racing recumbents.

Challenge will introduce a tadpole trike in early 2007 (see www.angletech cycles.com). This new trike has an aluminum frame 26"/2x20" wheels and a shell seat. A new frame design makes it easier to get on and off this tadpole. This new trike has some interesting details and refinements we haven't seen before. One such detail is internal cable routing. www.challengebikes.com

CHINESE IMPORTS: Several new small Internet distributors are selling SWB and trike recumbents. Our advice is that if you plan to buy a new recumbent from one of these new companies with little or no track record — proceed with caution. Keep in mind that shipping, return shipping and assembly (up to several hours labor) can be *very* expensive. We have not been offered any of these bikes to test. Hopefully this will change in 2007.

DAY6 BICYCLES: This semi-recumbent (their category, not ours) has dual 26" wheels and a very comfy seat — all for \$699. www.day6bicycles.com.

EASY RACERS: We have no official 2007 news from Easy Racers. The Javelin high bottom bracket LWB has been shown on the website. As of December 15th, we're not sure if any have been delivered. We have no test bike planned (we've asked many times). They had some one-off carbon fiber frames at the Sun booth at Interbike and rumors persist of a Carbon Rush and other new projects.

ELECTRA: Check out the new 2007 hot rod cruiser/CF bikes as well as 700c Townies in 3-, 8- and 21-speeds (as well as the 26" wheeled models in a vast array of colors. www.electrabike.com.

HALUZAK: After 14 years Bill Halu-

zak has retired from bike building. His website will be coming down, but phone and email still working for accessories, replacement parts and warranty items.

KMX KARTS: These are well known in Europe for selling kids BMX-like tadpole trikes. Their new X-Class (\$1299) trike is adult sized, and has 24-speeds and costs \$1299. Road riders can also get a light-weight wheel option. Kids models start at just \$549. www.kmxus.com

LIGHTFOOT: Lightfoot is making a few refinements to the Greenway (see letter in this issue). In case you missed it on our blog, Lightfoot has started production of their Stormy Weather delta velomobile with optional power assist. The design was prototyped for 15 years by Reg Rodaro, and will now be built by Lightfoot. The cost will be \$6000-\$7000 + shipping. www.lightfootcycles.com

LIGHTNING: Rumor has it that the Phantom is back for 2007. Now built overseas, the Phantom is basically a monotube P-38 that is easier and more affordable to build. Specs will be an LX/105 mix and priced hopefully under \$1,500. If, so, this should be a very popular SWB. www.lightningbikes.com

LONGBIKES: SWB and LWB models have been redesigned. Tandem has been renamed the Gulfstream. A delta trike may be in the works. www.longbikes.com.

QBX QUAD: This very trick and exensive quad was shown at Interbike. www.quadbikexcycles.com

REDRIM TRIKES (formerly Natalia Florence): Builds a three 20" wheel tadpole USS trike is priced at \$2195. www.nfcycles.com

TREK: A newly redesigned CF bike line — the Pure, Pure LowStep and Pure Sport. We've heard a rumor that a Trek crank-forward delta trike may be coming soon! www.trekbikes.com ◆

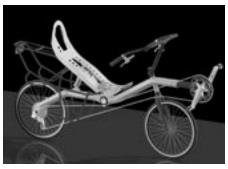
WRITE FOR RCN

We're looking for RCN reader/owner/writers to review their bikes or bikes they have access to (sorry, we can't supply test bikes). We have a new and easier road test template in the works. It would require about an hour of writing from our road test template as well as a few digital photos.

Email us to get on the list. We hope to have this complete by March 1, 2007. For more information, please email recumben tcyclist@gmail.com.



Angletech's RANS Xtracycle recumbent.



The all-alumium frame, seat and fork 2007 Challenge Mistral. Photo submitted by Angletech



Lighfoot's Stormy Weather velomobile. www.lightfootcycles.com

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We've heard the Giro 20 is Bacchetta's most popular model. We've heard that the Giro 20's sizing has changed for 2007.



The KMX X-Class adult tadpole.



The Day6 Dream SL "semi-recumbent"



This unique Bacchetta Cafe is their most affordable model.



The Easy Racers Javelin prototype.



WizWheelz' Ben Williams shows off their new Etavonni carbon-fiber electric guitar www.etavonniinstruments.com.



The Gardner Martin-designed Sun EZ1 remains he best entry-level bargain recumbent available today. We called it the People's Bent in RCN 094.

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Types of Recumbents

Here are the basic types of recumbents:

- Long Wheelbase (LWB)
- Short Wheelbase (SWB)
- Trike (Delta, Tadpole & Velomobile)
- Tandem
- Crank-Forward (not exactly a recumbent, but a relative)

LONG WHEELBASE (LWB)

The LWB is a long, chopper-like recumbent model. The LWB's pedals are behind the front wheel and are usually well below the seat height. LWB are the most popular and user friendly type of recumbent available today. LWB's are great all-around bikes and can be used for most any type of riding including: commuting, touring, day rides, and sport rides. The dual big wheel models, or LWB with fairings/body stockings can also be quite fast. The new Titanium models can be quite light weight.

The downside to the LWB is size, storage, transportability, and weight (some models). LWB's have become more difficult to find at dealers. Examples: Sun, Easy Racers, RANS and Lightfoot.

Note: Compact Long Wheelbase (CLWB): The CLWB is a scaled down LWB, usually with a 20"/16" wheel combination. These are fine city, recreational and light touring recumbents. Examples: Sun EZ1 & HP Velo Spirit.

Note: Long Wheelbase High Pedal: A few LWB models have their pedals at or above the seat height. This can move the center-of-gravity rearward and make for a longer reach to the bars. This position can also take some of the pressure of of your buttocks as it allows for a more reclined seat. Examples: Bacchetta Agio, and the soon to be released Sun Tomahawk & Easy Racers Javelin.

SHORT WHEELBASE (SWB)

The SWB is the sporty recumbent model that places the bottom bracket/pedals forward and above the front wheel and offers better weight distribution. The rider can recline more, and the feet and pedals are more in line with the riders body. The SWB is popular for sport touring and performance riding thanks to the more compact size, lighter weight and quick road-bike-like handling.

The downside to the SWB is that the handling can be twitchy and have a longer learning curve for new riders. They can also have heel interference with the front wheel during low-speed turns or knee interference with the handlebars. The higher pedals may require clipless pedals, and there is a greater likelihood for toe/foot numbness for some riders. These models are best suited to more serious enthusiasts. Examples: Volae, RANS, HP Velo, Burley, and Bacchetta.

Note Highracer: These are SWB recumbents with two large wheels (24", 650c, 26" or 700c). They are mostly laid back and aggressive performance recumbents, though some dual big wheel touring models are available. Examples: Volae, RANS Enduro and Bacchetta.

Note: Medium Wheelbase (MWB): These are similar to a SWB, but may have a longer wheelbase and a shorter boom. MWB have never been big sellers, but this could change with the Bachetta Cafe. Examples: Bacchetta Cafe and Bigha.



This is the 2007 RANS Stratus XP Ti LWB.



A Catrike Road direct steered tadpole trike.



A Volae Tour 26"/20" SWB with above-seat steering.

TRIKES

Recumbent tricycles come in two varieties:

Tadpole (two wheels in front): These are the sport tourers — kind of like the SWB of trikes. They have automobile-like steering and rear-wheel drive. They are very low to the ground. They work well for sport riding, performance, and due to their ability for the rider to lean and use body english in turns. Tadpoles also make fine tourers, but their low stance may be an issue for some. The low seat also makes getting in and out of the low seat more difficult for some riders. Examples: Sun, WizWheelz, Catrike, Greenspeed, HP Velo and Challenge.

Delta (two wheels in back): These are the all-around, or the LWB of trikes. Deltas have one steered front wheel, and usually



The 2007 Catrike Expedition 26"/20" touring trike



The WizWheelz tandem has S&S couplers for easier shipping. This is the most affordable of the tandem tadpoles.



The Sun EZ USX under-seat steering trike.



RANS 2007 Fusion CF.

one of the two rear wheels is driven. Their seat heights are of average recumbent height (not usually as low as a tadpole) so they are much easier to get on and off. They are well suited for recreation, cargo, commuting, and touring (though some can perform quite well). They are also excellent for a rider with balance issues of physical limitations. Trikes and trike dealers can be more difficult to find.

Examples: Sun, Greenspeed (new), Lightfoot and Hase.

In general, few trikes can compete with a fast recumbent twowheeler, but they are a blast to ride.

Velomobiles (VM): These are enclosed racing or commuting tadpole or delta trikes. Most have a full body, often with a roof, windscreen and belly-pan to fully protect the rider from the weather. Most are very expensive, starting at \$7,000. Some European models have long delivery times, and some don't ship into the USA. Concerns would be adequate braking down hills, being able to climb steep hills with such a heavy recumbent and visibility through the windscreens (fog and distortion).

Examples: Lightfoot (USA), Velo-Kit (USA), Cab-Bike, Alleweder, Aerorider, Leitra, Mango and Versatile.

TANDEMS

There are two-wheeled tandems, three-wheeled tandems (trikes), and even five-wheeled tandems (linked trikes). Two-wheeled tandems can be found in user-friendly LWB and more enthusiast-oriented SWB configurations. Be sure that your braking is adequate (consider a drag-brake if you plan to tour over mountains). The downside of tandems is storage, transportability, and cost. They also have less carrying capacity than singles do.

Examples: Sun & RANS (two wheelers); WizWheelz & Greenspeed (trikes); Lightfoot & Hase (linked delta trikes).

CRANK FORWARD (CF)

The CF was born when attributes of a LWB recumbent and upright comfort/cruiser bike combined. The CF looks like a regular cruiser bicycle with an extended wheelbase and a larger saddle that is lower and behind the crank making for a semi-recumbent riding position. With most CFs your feet can be flat on the ground while you are seated on the bike. Most CFs do not have a back rest (nor do they need one). Most CFs are casual recreational, comfort or commuter bikes. However there are some quite serious and lightweight models (RANS).

Examples: RANS, Trek, Electra (Townie), Sun, Cannondale (Daytripper) & others.

MORE INFORMATION

For more info, check out the following links:

www.recumbentcyclistnews.com
www.recumbentcyclist.blogspot.com (see sidebar links)
www.bentrideronline.com (click "links")
www.recumbentblog.com (see sidebar links & FAQ)
www.recumbents.com
www.ihpva.org (see Trikes mailing list)
www.crankforward.com
www.crankforward.blogspot.com
www.velomobiling.net

Several manufacturers have their own web forums and there are some active Yahoo recumbent mailing lists (see Editorial, page 2, this issue). Bentrideronline has the most active forum on the recumbent Internet. RANS has their crankforward.com and we have a crank forward blog to help new enthusiasts get going. We also have the RCN blog which provides updates in between print editions of RCN.

If you're not on the Internet yet, spend some time at your local library surfing these links (many libraries have free computer use and Internet access), or order some RCN back issues. ◆





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2007 WizWheelz Zoomer

TRIKE: WizWheelz Zoomer

PRICE: \$1699

CONTACT: www.wizwheelz.com

By Bob Bryant

he Zoomer and Zoomer Elite are new models from WizWheelz. Both use a new lightweight aluminum frame, direct under-seat steering, and have an adjustable boom. The Zoomer has one other design attribute that makes it unique — an adjustable seat recline angle combined with a fixed position seat base. The Zoomer also has a very attractive price.

USE: This is a sport touring trike for sporting day rides.

SEAT & COMFORT: The WizWheelz seat is quite comfortable. The mesh is firm, but there are adjustment straps on the under-side to relax or tighten the tension. The seat base is an integral part of the frame. The seat back hinges at the base offering an adjustable recline (via seat struts with ball detent pins). The reclining seat back is a real plus — especially to those who've found other similar trikes too reclined, or if you want the ability to experiment with different seat back angles. WizWheelz mesh seats don't have a lumbar support. Some riders prefer this, others do not.

FRAME: The Zoomer has a 6061 T6 heat-treated aluminum frame that is built overseas for WizWheelz. The Zoomer has the stiffest WizWheelz frame to date - because it's aluminum and the seat base cross supports stiffen the frame. The Zoomer has a telescoping boom for rider height adjustment (other WizWheelz models have sliding seats and fixed booms). Many riders feel that adjustable booms improves weight distribution. The Zoomer has direct steering. Gone is the mainframe pivot and under-seat bars. The Zoomer has "L" bars mounted to each kingpin headset and a linkage that connects the two wheels. One added touch was the welded on cable guides that don't require zip-ties.

RIDE: Thanks to the low pressure stock tires, the ride isn't as firm as you'd expect from a sporty aluminum framed trike. The steering wants to self-center — you push/pull the handlebars to change course. The stock tires make the steering feel heavy and requires more effort than need be. A quick tire change should solve this.

The Zoomer is lighter and stiffer than



the WizWheelz TTC and TTT. It's a fine performer, though not quite as comfortable riding as the WizWheelz steel and carbon fiber framed trikes.

COMPONENTS: The component package is no frills and basic, but the parts have been proven on the popular TTC model. If you prefer an upgraded package, see below for the Zoomer Elite.

GEARING: The gear range of 19.5"-92.2 gear inches is somewhat low, but works well. If you need taller gears, you could opt for the Schlumpf drive (internal 2-speed crankset) or have a specialist refit the trike with a Shimano Capreo 9-26 rear hub, cassette and rear derailleur.

CHAIN MANAGEMENT: The Wiz-Wheelz trikes have a somewhat extreme, though aesthetically pleasing, chainline that follows the main frame tube. The forward idler is a double under/under idler and the mid-idler is an double x-path. TerraCycles idler kits are also available. It would be a good idea to keep an extra set of idlers in your spares box.

BRAKES: The Zoomer has WizWheelz "Unique" disc brakes from the TTC. They stop just as good as the previous Hayes and seem fine to me. Our trike has no disc drag and braking power is equal on both levers. WizWheelz stocks replacement discs and calipers.

WHEELS: The Zoomer is spec'ed with WizWheelz "Silver" wheels which are imported machine-built wheels. The aluminum hubs are built for WizWheelz

by the same maker that Velocity uses and have cartridge sealed bearings. The spokes are 14 guage stainless steel. The rims are single wall aluminum which look good, but a double wall rim would be more robust. The top-of-the-line Velocity wheelset is available as an option (\$499).

TIRES: The stock tires are ChenShin nylon 406mm 20" x 1.75" 40 psi recreational tires. They are soft riding and make the trike forgiving. Honestly, I couldn't tell that I was on an aluminum trike (usually stiffer than steel trikes) with these soft tires. Performance oriented enthusiasts should defininitely upgrade to the faster higher pressure Kenda Kwests or Schwalbe Marathon tires. Marathons are comfortable and fine handling tires and Kenda's are more affordable.

UPGRADES/ACCESSORIES: Wiz-Wheelz flag (\$20); Mirrcycle mirror (\$20); seat bag (\$50); rear rack (\$65); Fenders (\$100); TerraCycles idler set (\$110); Lexan fairing/frame (\$594) and Schlumpf drive (\$500).

VALUE/RESALE: The Zoomer is an excellent buy and WizWheelz trikes have fine resale value (especially models under \$2000). The downside to reselling any trike is the shipping cost, which will be higher for you than it is from WizWheelz.

COMPARABLES: The Zoomer is the most affordable WizWheelz aluminum trike, priced between the TTC and TTR. Keep in mind that the Zoomer is a direct-steering, quick-handling sports trike, not a

touring trike like a TTC/TTT.

The Zoomer offers lower priced competition for the more expensive direct steered performance trikes. The biggest difference between the Zoomer and other brands is the reclinable seat back.

The Zoomer Elite comes as a 27-speed with bar-end shifters, an LX rear derailleur, Tiagra front derailleur, hollow forged RPM cranks (by FSA) and Avid disc brakes. The Elite also has the "Silver" wheelset.

DIRECT PURCHASE: Fully assembled shipping is available (\$129) to your local Con-Way service center; to a business (\$139); and to a residence (\$179).

RECOMMENDATION: WizWheelz is serious about selling lots of recumbent trikes. Their line is extensive and they are growing at a rapid pace. In 2005 we saw the refinement of the TT 3.6 (now TTT). In 2006 we saw the new TTC (budget tadpole based on TTT) and for 2007 they are taking on the entry level sport trike market. Wiz-Wheelz writes, "You will not find another aluminum trike of this quality at such an aggressive price." To this we would totally agree. That said, the Zoomer won't take over the TTC and TTT sales. They are both more comfortable and easier to ride.

The Zoomer is 5" narrower than the TTC/TTT models. The direct steering works very well and seemed more refined than it did on our test Edge model a few years ago. The new Zoomer fixed base/reclining seat will be a very important design feature for some riders.

The Zoomer is a sweet new trike that takes WizWheelz into new territory — entry level performance. The Zoomer is an excellent new trike at a price that can't be beat. Like the TTT and TTC, the Zoomer will be a tough act to follow.

FOR: Seat base stiffens frame, seat back has recline adjustment, lowest price for a sporty aluminum direct steered trike.

AGAINST: Stiffer ride than TTC or TTR, more steering effort required, low psi tires, 5" narrower than TTC/TTT and we'd like to see double wall rims.

NUMBERS: Wheelbase: 36". Track/ Overall Width: 27.5"/30.25". Seat height: 9.5" (RCN). Bottom bracket height: 15.5" (18.5" for me). Weight: 34 lbs. Weight limit (rider & cargo): 275 lbs.

FIT: One-size fits most (37-51" x-seam, approx. 5'-6'5").



The Zoomer on the bike trail



The WizWheelz Edge and other trikes (excluding the Zoomer) now have an optional hardshell seat.

FRAME & SEAT DETAILS: Frame: One-size first all 6061 heat-treated aluminum. Chain idler: WizWheelz delrin. Seat Back: Reclinable mesh. Seat Base: Fixed. Handlebar: WizWheelz Independent direct. Color: Ultra Banana powdercoat.

COMPONENTS: Rear derailleur: Shimano Altus. Front derailleur: Shimano Sora. Shifters: SRAM Grip Shift MRX Comp. Crank: Alloy 30/42/52. Bottom bracket: Sealed square spindle. Cassette: Shimano 11-30 8-speed. Chain: KMC. Brakes: Unique disc. Brake levers: Pro-Max. Wheels: WizWheelz Silver. Hubs: Alloy cartridge sealed. Rims: Alloy single wall. Tires: ChenShin nylon 20" x 1.75" 40 psi. Pedals: Platform. ◆





The Zoomer has "L" shaped direct steering handlebars somewhat like the Edge model.



WizWheelz' chainline uses two doubleidlers and follows the line of the frame. Note the seat base is now part of the frame and the seat back is hinged and reclines. This has made for a much stiffer frame and seat.



WizWheelz uses real cable stops on thier aluminum frames. There is no need for zip ties, tape or other methods of cable fastening.





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2007 RANS Dynamik Crank Forward

BIKE: 2007 RANS Dynamik

PRICE: \$995

CONTACT: www.ransbikes.com

By Bob Bryant

Dynamik crank-forward (CF) line into three new and distinct models. Our standard Dynamik test bike has a new TIG welded aluminum frame that has reduced the weight by four pounds! The bike also has lower gearing as well as less extreme "Metro" tires — more suited for recreational riding and commuting. The new Dynamik is a very refined product that looks and rides great and offers more value than most bikes we test. Read on to see if a RANS CF might be in your future.

USE: While designated a mountain bike, this Dynamik has urban commuter tires on it and is a more all-around bike. If you want a more serious mountain version, read on to the "Comparables" section.

SEAT & COMFORT: The heart of the RANS CF bikes is their proprietary Poly-Spade seat. The seat base is wide, ergonomic and flexes a bit as you pedal. The seat cover has minimal padding — so be prepared for firm comfort. The seat is unique and is certainly the finest seat of its kind available today. The seat post is slotted so it always faces forward and there is a quick-release height adjustment and tilt adjustment. I like my seat flat, tilted downward ever so slightly. It took me about three tries to get it right.

Recumbent riders will immediately notice the lack of a seat back. While you don't get full back support, the backless design lightens and simplifies the bike — and you'll get less sweaty. There is a lip on the back of the seat base that allows you to push a bit.

RIDE: RANS' new and lighter aluminum frame is stiffer than the previous CroMo frame — you know you're riding an aluminum bike. The Dynamik geometry makes it so you can pull yourself off the saddle to deweight, or stand up when you need too. In reality, I didn't do this very often. The Dynamik's steeper head angle makes for a more technical, "point-and-shoot" steering geometry — quicker handling than the cruiser-like Cruz. The riding position of the Dynamik is also more stretched out. It's much like the compari-



The 2007 Dynamik offers the most value and is the best all-around CF in the RANS line. There are two more Dynamik models that are more extreme MTBs.

son between a relaxed geometry cruiser bike and a modern mountain bike. The 2007 Dynamik has a neutral feel with no front-end flop or bad habits. The steering geometry is more refined than previous RANS CF models I've tried.

PERFORMANCE: At 26 pounds — this is the lightest \$1000 bike we've tested. It rolled along effortlessly and comfortably. The bike seemed fast enough to me, but I had a difficult time keeping up with my recumbent rider pals on the flats. The Dynamik could be even faster with some CF training and faster tires.

CLIMBING: To climb hills fast on a Dynamik — stand up on the pedals. In contrast, the sit-down technique has you pulling yourself into the bars to generate power. While this works for some, I had mixed success with this technique. For me, climbing with a CF is no easier than climbing with a recumbent — unless you can stand on the pedals.

FRAME: The new lighter weight TIG welded aluminum frame is made overseas for RANS — but you'd never know it. The fabrication quality is every bit as good as the USA-built RANS frames.

The lightweight RANS aluminum fork has threadless steerer tube (1-1/8") and also has disc tabs on it.

The handlebars are 1.5" rise RANS bars on a 7" RANS stem. This combo seemed to work perfectly. Other stems and bars are available.

COMPONENTS: The specs on this bike are a good mix of decent components,

but with an eye on value. All of the parts held up well throughout our test. The only part I'm upgrading are the brake pads (to Koolstop MTB).

The SRAM 3.0 rear derailleur shifted by the SX5 twist grip is entry level for certain. While I have broken these shifters before, our last three test bikes have been okay. I wouldn't upgrade it until you have to. The only real downside to this combo is that they seem to need a cable tension adjustment more often.

GEARING: The gearing (17.2-104 gear inches) is ideal for my all-around riding, it may be too low for flat-landers or go-fast riders.

CHAIN MANAGEMENT: This model has no chain idler, nor does it need one. The chain is longer than a standard bike, but you don't notice it.

BRAKES: The Tektro V-brakes are very good. They can be even better with upgrade Koolstop pads. If you want to upgrade from here, make the jump to disc brakes. I like cheap and simple — so we chose the basic Dynamik for this test.

WHEELS: Our early 2007 model test bike had 2006 wheels on it, with Alex DA16 rims and Shimano Deore hubs. The wheels were problem free. We did not get the opportunity to try the new "Jet Disc" cartridge sealed bearing wheels.

TIRES: The Metro Duro tires are ideal for the recreational rider/commuter. The bike will easily accept more robust MTB tires or slicks. Marathons, Comets or Kwests would make the bike perform

better. The stock Metros were pleasant riding and robust enough. They handled the city streets and gravel/dirt trails well enough.

UPGRADES/ACCESSORIES: An optional carbon fiber seat pan (\$120) saves .3 pounds. Planet bike fenders, kick-stand, mirror, rack, and bags are all available from RANS.

RANS offers a rack for their CF bikes. The mounting kit allows the rack to be mounted directly to the dropouts, or to a custom bolt-on rack mounting plate that repositions the rack about 3" rearward. Since I'm 6' tall, the seat height somewhat encroaches over the air-space above the rack. These plates also offer more clearance over the stock fenders (definitely recommended if you are taller or will use a rack and fenders).

COMPARABLES: Two more expensive Dynamik mountain bikes bikes are also available. The Dynamik Trail (1395) has a Rockshox suspension fork and weighs 30.2 pounds. The Dynamik Pro (\$2750) has fancier MTB specs, including disc brakes and

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Mavic Crossmax wheels and weighs 26.2 pounds.

The Fusion (\$995) and Cruz (\$1100) have more relaxed head tube angles and the handlebars come back closer to the rider. This relaxed position does not allow riders to stand on the pedals and can place more of the riders weight on the seat. These models are best for laid back cruising/recreational riding, reasonably flat terrain, or those who just won't need to stand out of the saddle. The 700X (\$1895) is a Cyclocross-inspired urban trail bike. The 700X has the Dynamik's aluminum frame/fork and tall 700c wheels, Avid disc brakes, rugged Schwalbe 30mm CX Pro tires, and weighs 26.4 pounds.

There are additional RANS CF models, such as the Zenetik road bikes.

DIRECT PURCHASE: Finding a CF to ride may be difficult. If you don't have a stocking dealer nearby, RANS will sell you one direct, and they have a 30 day return polity (contact RANS for details).

RECOMMENDATION: If you visited the RANS website recently, you'll notice that the CF bikes get top billing at the site. At 26 pounds and under \$1000, the RANS CFs offer more value for your dollar than any recumbent currently available. However, it's not a recumbent. It's difficult to tell where the CF bikes will fit into the marketplace. They are catching on, and riders are liking them (see www.crankforward.com).

The CF may not be as comfortable as a recumbent, but they are lighter, simpler, more affordable and more *normal* — if this matters to you. Both the Fusion and Dynamik make ideal trail bikes and were near perfect for my commute and varied terrain. A CF can also be an intermediate step for a rider not ready to take the recumbent plunge, or who doesn't ride far enough to require full recumbent comfort. You can also just want one because they are new and different.

The RANS CF design is more recumbent than an Electra Townie or similar mainstream CFs (more reclined seat tube angle). The only possible negative to the RANS position is that it places minor pressure on your lower back and your gutt (if you have one). In contrast, I've read other reports that the position is easier on your back.

The RANS CF bikes are more serious bicycles than the mainstream CF bikes (like the Townie, Gruv, etc.) and they really have no competition. However, this means that RANS has so far had to develop the enthusiast CF market on their own.

With the Dynamik's more laid back seat position and steeper, more aggressive head tube angle comes a longer reach to the handlebars than other RANS CF models (B-37 or Nitto Albatross cars can help this). Those who prefer a more relaxed handling



"Rotor Cranks are what may be the biggest performance enhancing addon available on the market today." -Bryan Ball, BROL

"now that I've ridden with Rotors it's hard to imagine ever wanting to ride without them. The Rotor crank system is quite simply an extraordinary, revolutionary innovation in bicycle design" - Matt Schneps, RCN

"It has succeeded where others have miserably failed.... Rotor Cranks do what they promise!" - John Axen, Recumbent and Tandem Rider mag.

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Sold with a 100% satisfaction or money back guarantee! At any bicycle store RotorUSA@RotorBike.com 970 453 2989 bike and don't care to stand on the pedals will prefer the laid back comfort geometry of the Fusion, Cruz and CITI models.

I prefer the more upright geometry of the Dynamik. It rides and steers like a modern mountain bike or urban commuter — but offers a lot more comfort. It's a fine value and decent performer. The Dynamik is a flat out home run. If you are considering a sub-\$1000 recumbent RIDE THIS BIKE.

FOR: FOUR pounds lighter than last year. Comfortable, fast, and lightweight. In the world of recumbents, this is an excellent buy. You can stand/pedal on this model.

AGAINST: Rear derailleur and shifters are just okay. Aluminum frame is a bit stiffer riding (than previous CroMo). Finding one to ride may be difficult. Longer reach to bars on this model.

NUMBERS: Wheelbase: 49.5". Weight: 26 lbs. Weight limit (rider & cargo): 275.

FIT: One-size fits most.

FRAME & SEAT DETAILS: Frame: 7005 Aluminum. Fork: RANS 26 Alloy 1-1/8". Headset: Ritchey Logic cartridge threadless. Seat: RANS Poly Spade. Handlebar: RANS 2.5". Stem: RANS 7". Color: Corvette blue

COMPONENTS: Rear derailleur: SRAM 3.0. Front derailleur: Microshift. Shifters: SRAM SX5. Crank: Truvativ Blaze 22/32/44. Bottom bracket: Truvativ. Cassette: SRAM 11-32 9-speed. Chain: KMC Z9000. Brakes/levers: Tektro MT15. Hubs: Deore. Rims: Alex DA16 36°. Tires: IRC Metro Duro 1.5" 50-100 psi. Pedals: Wellgo platforms. ◆



This is the RANS CITI. It has B-37 bars, Schwalbe Big Apple tires, a minimalist 9-speed drivetrain and disc brakes.

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A Front Wheel Drive For the Masses?

BIKE: Cruzbike Freerider

PRICE: \$995

CONTACT: www.cruzbike.com

By Bob Bryant

"The Cruzbike is a comfortable, fast, and efficient all-purpose recumbent bicycle with several features that protect your health and safety. It's also a blast to ride! The Cruzbike truly will renew your love of cycling." — Cruzbike

drive (FWD) for years — since I first saw photos of Tom Traylor's unique FWD bikes back in the late 1980s. I first saw the Cruzbike FWD kit advertised on the Internet a few years ago. I then found out that two new production models would be unveiled for the 2007 season. The two models are essentially the same, with different handlebar set-ups: the Freerider, has chopper bars that slide on the boom and the Sofrider has begging hamster "T" bars that mount to a stem in the head tube. Our test is of the Freerider model.

Our test bike is one of the batch of complete Cruzbikes shipped from Cruzbike's new facility in North Carolina. The Cruzbike was designed by Australian Jonathan Tolhurst who's been marketing the kits for several years. The new USA team is led by Cruzbike co-owner Jim Parker, MD and Marketing Manager, Rob Redfearn.

USE: This is an entry level recreational casual cruiser type recumbent.

SEAT & COMFORT: The seat is minimalist, but also quite ingenious. It mounts to a seat plate at the base, and the back mounts into an upright style seat tube. The position is fairly laid back, so the comfort was okay. It's not the most comfortable recumbent seat, but it does work well for the intended design.

RIDE: The ride of this bike is very unique. Getting started takes some patience. The pivoting FWD front-end swings to the left with a right pedal stroke and visa-versa. You have to be light on the pedals until you achieve balance. Once rolling you'll need to learn to put opposing counter-pressure with each arm to overcome the front-end swing and conrol the opposing forces. For me getting rolling and balanced was easy — but mastering the technique was difficult. I spent a several hours riding the



The Cruzbike Freerider

Cruzbike and while I got better each time, I never could track it perfectly straight. I had no idea that FWD made for such a serious upper body workout.

The FWD steering geometry high centers slightly when tracking straight forward, and wants to fall away when steered. When you walk the bike you have to hold onto the bars (not the seat) or the FWD will scissor back and hit the frame.

FRAME: The frame is your basic imported aluminum "Y" frame mountain bike style with a soft front suspension fork (40 mm of travel) and rear suspension combined with a steel FWD (frontwheel-drive) swinging style front end. The steering is via chopper bars and you can adjust both height and closer or away from your body.

WEIGHT: Our Cruzbike was a bit overweight at around 36 pounds.

FRONT-WHEEL DRIVE (FWD): RCN readers should recognize this type of FWD, the "pivoting boom" or "moving bottom bracket" pioneered by Tom Traylor back in the 1980s. Tom is an RCN reader, well known in human powered vehicle circles and has sold plans for his homebuilt FWD for many years.

One added benefit of FWD as the bike packs well. It fits in a regular bike box and the front end can be folded under the bike once the quick release telescoping boom (rider height adjustment) is released.

COMPONENTS: The componentry on this bike is very entry level. While the bike

pedaled, shifted and braked just fine, the bike has only 8-gears, the rims are single wall, and the rear wheel is bolt-on (no quick release). The spec is not as good as other \$1000 recumbents we've reviewed.

GEARING: With just 8-speeds, the range is limited to just 33-102 gear inches. The bike needs a lower range for any serious climbing. The chain management works great. There are no idlers on the bike, and the chain is the length of a standard bike.

The bike comes with 152mm crank arms which, based on previous RCN discussions, promote spinning and require lower gears according to "short crank theories." I didn't mind the 152mm cranks on this bike, as FWD is totally different from any other short crank recumbent I've ridden. However, the bike desperately needed lower gears if you want to climb any serious hills.

BRAKES: V-brakes are ideal for this bike, but the bike comes with inexpensive brakes and pads.

WHEELS: Our bike show demo bike arrived with both wheels out of true. The alloy hubs and Weinmann 7M19 single wall rims are really entry-level or casual rider spec.

TIRES: The tires are one of our favorites — Kenda Kwests, but these are the 1.5" 65 psi version — which don't make sense on a suspended bike. Future Cruzbikes should have 100 psi Kwests.

ACCESSORIES: The bike will take

a seat post rack off the back, and quick release fenders can be installed.

COMPARABLES: There is nothing like a Cruzbike. The Sun EZ1 or EZ Sport are similar in weight, but have better components and wider range gearing. In contrast, the Sun recumbents are much easier to master and ride.

Cruzbike plans to unveil another new model that will be two pounds lighter, have a upgraded components, including a SRAM DualDrive 27-speed, upgraded suspension, quick release and a target price of \$1600. The company also offers the Silvio carbon-fiber racing frame as well as a FWD kit that includes the front swing arm parts and a seat to convert your "Y" frame mountain bike to a FWD recumbent.

PURCHASE: Cruzbike sells direct mailorder, through dealers. Ask about their "29 (S)MILE PROMISE."

RECOMMENDATION: The component spec is basic-basic and will need some owner-upgrading. This model is best for flat land or shallow hills, but did not have a wide enough gear range to make it through our hilly test course. The bike feels heavy and the suspension is probably unnecessary (especially with the low pressure tires).

The reason you might be interested in a Cruzbike is because you want to try FWD. Many of us have been intrigued with FWD and this is your big chance to try it — and Cruzbike's FWD works well. If not the Sofrider or Freerider, consider the FWD kit or one of the upcoming models — if you are so bold.

The one aspect of the FWD that is not to be taken lightly is the amount of upper body input required to master the riding technique. Cruzbike discusses this as a benefit, though I found it to be a bit overwhelming. I heard similar comments from other riders. The bottom line is that you don't get the upper body relaxation with FWD that you've come to expect from other types of recumbents. The arm counter-pressure and knee steering techniques will take time to learn — and may be a deal breaker for some.

In theory FWD is the best possible recumbent drivetrain with a single shorter chain, no idler, easy shifting, trussed front end, improved weight distribution and easy adjustability. However, in practice, the swinging front end is challenging. You need to have patience and want to try something totally different.

I don't think the recumbent world will be flocking to convert to FWD, but it's



The Cruzbike's lightweight Aluminum shell seat.



The Cruzbike can fold on your if you're not careful. It's a difficult bike to walk.



The lightweight Silvio has a carbon fiber frame, rear suspension and with light parts can weigh in the 23 pound range.

unique enough, and if you're adventurous enough — it might be a fun diversion of you. We'll also be looking forward to the more enthusiast oriented models.

FOR: There is nothing like it, something new for the bent rider who has everything, easier than I thought to ride, but difficult to master (tracking it straight).

AGAINST: Mediocre components, poor climbing ability (lack of low gears), heavy, unusual technique and the only commercially available FWD.



Note the T handlebars on the Cruzbike Sofrider.



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braking or even in high-speed braking under controlled circumstances, because you know you are going to brake and so modulate your brakes to avoid it. It comes to the fore in high-speed EMERGENCY braking when a car suddenly pulls out, a dog runs into the road, or we (like Triker 72) become alarmed at how fast we are going, or something else. And that happens all too often.

So, what to do about a basic problem with tadpole trikes that I think has received inadequate comment in trike reviews. I can only agree with Triker 72, who wrote, "the current braking and steering systems needs help." Have I shot suddenly from side to side on the road while emergency braking on my Greenspeed X-5. Absolutely!

Thad Sitton

KNOBBY TIRES

I've been a fan of RCN for a long time, but I never see any mention of using heavy duty MTB tires on a bent, even in your article about the Lightfoot trike.

I live down a long dirt road and I travel several miles on asphalt to get to town so I need high pressure combination tires. I use Hutchison Python MRC 80 psi MTB tires on my Lightfoot trike, and Hutchison Piranha Air light on the rear of my Explorer bike. Both tires have big knobs on the sides of a raised center strips for lowered rolling resistance. The Kenda Kross and Vredestein Spidermax have slicker center strips, but lower psi. I recommend these tires for fully loaded touring and gravel trails, they add a lot of stability.

Hugh Jassman

Editor's Comments: I don't usually recommend knobby tires because few recumbent riders actually ride off road. If I were to make a recommendation, it would be for

an MTB tire with a center ridge, for lower rolling resistance on-road. Fatter street and commuter work fine if you ride on flat walking and rail trails like I do.

TRIKER 72 COMMENTS

I can fully commiserate with Triker 72 regarding his mishap and fractures. I've been riding a Catrike Road for a year and have twice been very near disaster only because I'm not quite used to it and because of a trike's unique response to potholes and other irregularities in the pavement. At low speeds, this problem is nil, but since I got a BionX electric assist several months ago, I was running at greater speeds and when I hit an irregularity the bump is forceful enough to dislodge at least one foot from the pedals. In both cases, I was fortunate enough to have been able to scuff rather than grab the surface and escape a nasty fracture.

My solution (other than be wary of bumps) is to attach a 1/2" canvas band to the pedals. This loosely keeps my foot in place when the hit occurs so that I can then reattach my foot to the pedal. Other than that I'm having ball with this trike.

Triker 82

CLIPLESS SAFETY

I'd like to take respectful exception to the Editor's advice to avoid clipless pedals. My wife and I both view them as essential safety items (and only incidentally as performance items). I'll bet many readers can recall the terror that ensued when a foot slipped off a pedal at speed! It's something else if they make ones feet numb - otherwise it seems like driving ones car without a seatbelt. Modern day clipless pedals are much easier to get out of and, with a small amount of practice (and correct adjustment), that's no longer a problem.

Walter Hay

... Cruzbike Continued

NUMBERS: Wheelbase: 42". Seat height: 25". Bottom bracket height: 24.75". Weight: 35.5 pounds

FRAME & SEAT DETAILS: Frame: 6061 Aluminum "Y" style. Fork: Headshock. Seat: pressed aluminum with foam cover. Handlebar: chopper style. Stem: Custom. Color: Silver.

COMPONENTS: Rear derailleur: Shimano Alivio. Front derailleur: None. Shifters: Shimano Revoshift twist. Crank: 152mm alloy 44-T w/chain guard. Cassette: Shimano 11-34 8-speed. Brakes: alloy V. Hubs: alloy. Rims: alloy single wall. Wheel build: machine. Tires: Kenda Kwest 1.5" Pedals: Resin.

MORE FWD INFO: Check out Tom Traylor's website at: http://traylorfwd.home.mindspring.com. ◆

Editor's Comments: Over the years I've heard numerous user reports both blaming clipless pedals for accidents, as well as those proclaiming their safety. While I have no problem with enthusiasts using them, it is up to users to decide whether or not they are a good choice for themselves, their bike, riding style and terrain. Clipless pedals are more necessary for higher bottom bracket recumbents, and are a better choice for the rider open-road rider, rather than the commuter or recreational rider. I am completely against riding with street shoes and the stock pedals that most recumbents come with - it's just too easy foryour feet to slip off, and these stock pedals are narrow. There are other options. I currently use pinned mountain bike platform pedals and my feet have never slipped off of them. ◆

