

# HUFF



January - February 2001 - Volume 4 - Issue 1

## Letter from the Editor

Welcome to OzHPV's bi-monthly newsletter for 2001. Also enclosed is a new brochure we thought you may be able to use when meeting people. Feel free to copy and distribute it around - it may help increase our membership.

The pictures of the Challenge in this edition of HUFF can be purchased from Steve Sellar. 311 Lawrence St, Wodonga, 3690, ph 02 60593357 or 0419409719. \$1 each + \$1 postage (in Australia) for a 10 x 15 cm color print. There are many more available - see the OzHPV web site to see them in color.

<http://sunsite.anu.edu.au/community/ozhpv/2000photo.htm>

Timothy Smith

## Greenspeed OzHPV 2000 Challenge

Victoria welcomed our intrepid club members with open arms, and open skies as well, as the rain tumbled down. Needless to say, our embattled race organisers struggled through like true drovers, with Akubras and oilskins in sight. Paul was unperturbed, as the precipitation was a minor inconvenience in comparison to three clutch swaps and two engine rebuilds (his car broke down just before the drive up).



Start of Criterium final



Adrian Gotts - Shopping race



Jeremy Lawrence - Shopping race

It was glorious to arrive and see the moshpit of activity that the undercover area provided. With lots of people and HPV's in one spot, it was hard not to socialise and catch up from the year past. Fairings grew like origami creatures and seemed to flex their wings before scorching off for test runs. A veritable flock was present, and during races they often appeared as a swarm of bees, overtaking as a pack and leaving behind residues of heavy breathing, clicks & whirrs.

I particularly enjoyed the dual slalom, off road and the shopping race, probably because they were the only races I did any well in. The slalom and shopping race were held on small courses that encouraged spectators to gather around. The "dual" part of the dual slalom greatly increased the tempo of the event, and it would be great to see more of these "dual" races in the future. I think the right hand side of the slalom was the fastest, owing to slightly misplaced witches hats, so I was terrified to have to move to the left side when facing Bec "my smile doesn't mean I am slow" Gibbs. The gravel on the hairpin turn at the end of the slalom also helped to balance the advantage of the 2 wheelers over the trikes.

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The shopping race was particularly good as I thought it duplicated real world luggage carrying quite well. I live car-free in central Melbourne, and so use bikes and a trailer for most shopping. The big bulky witches hats and black weights were similar to hay bales, bags of mulch and cases of wine that I have carried in the past. It showed to me that for real world shopping, panniers aren't enough! Still, if the race had been real, I shouldn't have been able to carry all the stuff in my arms (insert photo). The course for the shopping race was good too - I typically ride on streets, make slow sharp turns, carefully negotiate gravel & cobblestones, and go up ramps to get onto footpaths. The course didn't force you to climb gutters, which I thought was good, as I never do that in real life.

The criterium provided the best live cycle racing I have ever seen (I don't get out much). I remember two years ago I had a great race in the crit final against Robert Braunsthal, I just couldn't overtake the chap (he has white hair, mine is red). This time I didn't make the final, but had the opportunity to see Rodney Williams fight it out with one of the fully faired trikes from Notre Dame College. The pair of them would scream around, full speed into gravelly corners, and use the other as a barrier against centripetal force. The witches hats tumbled and the crowd kept trying to keep their jaws from hanging



Shopping Race

open. Scott Setford and Ben Goodall also had a couple of scrapes. Scott tried to his rear brake "swing" around the gravelly hairpin, but over braked, stopped, blocked the track, and Ben ran right into him! Poor beggars.

Overall, I thought the race locations were well selected, providing a wide range of locale and diversity for the riders, and showing off the various different tracks of the DECA course. The Greenspeed Challenge is meant to identify a "practical" vehicle, one which has good speed, manoeuvrability, handling, stability, luggage capacity, acceleration, etc. The only thing it didn't really test was how well the vehicles mixed with traffic, but this is a really difficult thing to measure (all suggestions welcomed). Suggestions on how to improve the event for next year are welcomed, and a lengthy list has already been collected at

<http://sunsite.anu.edu.au/community/ozhpv/chalsuggest.htm>

Disclaimer: The author was on the organising committee. Jeremy Lawrence [jeremyl@cfcl.com.au](mailto:jeremyl@cfcl.com.au)



Bec Gibb in the Road Race



Emma James - Road race



Adrian Gotts - Shopping race



Ian Sims presenting the prize to the overall winner, Scott Setford



Steve Nurse - Twin Slalom



Ben Goodall, Harry Gordon, Chris Moseley

## Results list for the Challenge 2000

ID	Vehicle Name	Name	Category	Vehicle Type	Total Points	200m Drag	200m Sprint	Dual Slalom	MR Components Criterion	Off Road	Road Race	Shopping Race	Time Trial
1	Yellow Peril	Robert Braunsthal	Open	Trike	14						7	7	
2	Kika Long	Rudolf Wergner	Open	Trike	5			4				1	
3	Commuter Bicycle	Stephan Davidson	Open	SWB	18	2		4			7	3	2
4	Avantii Hammer	Fraser Row	Open	MTN	21			6	5	10			
5	Vision VR42	Eric Vandamme	Open	SWB	2	2							
6	Dr Slick	Ben Goodall	Open	Trike	25		4	4	9	8			
7	Penfold	Hayley Sharp	Women	Trike									
8	Flyin Low	Paul Sims	Open	Trike	6	6							
9	Rodney's Trikeke	Rodney Williams	Open	Trike	25			2		2	7	10	4
10	Ross	Ross Harrop	Open	Other	2	2							
11	Clapped Out	Struan Little	Open	Trike	13	4	2	2				5	
12	Little Fairlane	Jeremy Lawrence	Open	CLWB	9			8		1			
13	Flying Furniture	Ian Humphries	Open	SWB L/Racer	53	6	10	4	8	5	10		10
14	Bec's Greenspeed	Bec Gibb	Women	Trike	56		9	10		10	9	9	9
16	Emma's Greenspeed	Emma James	Women	Trike	71	10	10	2	10	9	10	10	10
17	Greenspeed Ute	Rowan White	Open	Trike									
18	SunsTrikeke III	Chris Curtis	Open	Trike									
19	Kasey's Bike	Kasey Curtis	Junior	SWB									
20	Ben's Trikeke	Ben Curtis	Junior	Trike									
21	Shello	Darryl Shelswell	Open	LWB									
22	David	David Johnston	Open	Trike									
23	Bananna Chair	Andrew Maticka	Open	Trike	38	4	3	2		7	7	8	7
24	William's Greenspeed	William x	Open	Trike	4							4	
25	Bike Chameleon	Steve Nurse	Open	Other	8			2				6	
26	Locomotive Breath	Karl Nissen	Open	SWB	17		5	2			7		3
27	Simon's Greenspeed	Simon Blake	Open	Trike	12						7		5
28	Agent Orange - Pink	Scott Selford	Open	Trike	64	10	9	2	10	6	9	9	9
29	Firefox	Duncan Cleland	Open	MTN	19			10		9			
30	Infinity	Erin Cleland	Junior	LWB	20		9	2					9
32	Jason's Greenspeed	Jason Forbes	Open	Trike									
33	Smokin	Notre Dame College	Junior	Other	2			2					
34	Givin Cheek	Notre Dame College	Open	Trike	15		8	4	3				
35	Running Bare	Notre Dame College	Open	Trike	29	4	7	4	6		8		
36	Sims Metal	James Friday	Open	SWB	13	2				4	7		
37	The Elephant Bike	Tony Jack	Open	SWB	35	8	6	2	4		7		8
38	Warren's Trikeke	Warren Knox	Junior	Trike	50	10	10	10				10	10
39	Emoly	Chris Moseley	Open	Trike	17			4	7				6
40	Adrian's SWB	Adrian Gotts	Open	SWB	8	2	1	4					1
41	Andrew's Greenspeed	Andrew Berry	Open	Trike	6	2		2				2	
42	Far Kew	Phill Duncanson	Open	MTN	3					3			

# Dr Weaver's Eyewitness Report of UFO in Nevada Desert Near Battle Mountain Oct 23, 2000

In order to believe a UFO sighting one needs to understand the conditions that lead to the illusion. Let me fill your head with some facts before I share with you my experience.

An increased incidence of UFO sightings occurred shortly after the International Human Powered Vehicle Association was formed in 1974. Was there a connection between the rapid increase in speed of human powered vehicles fostered by the association and the UFOs? Was there extraterrestrial interest? By 1986, Gardner Martin's streamlined bicycle had gone 65mph in a remote location near Mono Lake and seemed unbeatable.

In spite of an almost endless variety of alien-looking IHPVA machines, the short wheelbase "low racer" configuration, now dominant in IHPVA racing, was still unrecognized. The configuration occurred to my son Matt. We tried it and it worked. We demonstrated the significance of the very low short wheelbase design with a bike called the Cutting Edge (CE) in 1989.

The CE seemed to be both the most efficient and most impractical of bikes.

This was evident to those present at the 1990 IHPVA meet at Portland International Raceway. What else could in 20 miles put 1/2 mile on the previously undefeated Fast Freddy in the Gold Rush? What else could put over 2 miles on the rest of the field of efficient bikes from numerous universities and Europe? What else could hit 56 mph on the short straight and average 45 mph for the last few laps of the twisting 2mile road course?

What else could take me an hour to get the streamlined cover on?

Most builders in Europe skipped the cover and just enjoyed the rider configuration and rapidly hundreds of low racers emerged. Most current low racer riders have never heard this trivia. Thus, if by chance you witness an American accidentally run into a low racer while traveling in Europe, it might not be comforting to the rider to inform him that his ill fated bike also had its origins with the driving of an American.



The consensus of HPV experts is that a human 75mph sprint may be possible in the distant future. Matt has other ideas. There is a phenomenon called "laminar flow" that if understood and applied can blow these predictions away. The 1992 Kyle Edge (KE) was our first attempt at this. To improve safety it had a thick carbon honeycomb and steel roll cage and hip protectors. It was built for Chet Kyle's 1992 IHPVA championship but we burned ourselves out trying to make the perfect windshield required for laminar flow. To eliminate this daunting task we took on the daunting task of balancing a bike solely by video.

In 1995 Matt created a highly laminar flow bike estimated to have one-third the drag of the best streamliners. Its speed potential was scary, thus the Virtual Edge (VE) was designed for hour and longer records. Our high hopes for this bike were dashed when poor frame workmanship made the well-designed VE handle poorly at speed.

Sean Costin organized "The Words Fastest Bike Race 2000" to be held in October on a course discovered by Matt. The course is 5.4 miles long, smooth, safe and meets the rules of the IHPVA. This inspired Matt to build another bike. I wonder now if the bold name attracted distant visitors?

Things went well until a schedule failure on milling parts developed. We were desperate. We had promised Sean to be at his race. Maybe the old KE would be fast enough.

With a week to go we pulled a new body from the 1992 molds.



I told Gardner Martin about it. Gardner said we would never get it finished but we would have fun trying. Gardner is almost always right, but this time he proved himself wrong. He did it by showing up at our shop with his brother and nephew and working long hours grinding flanges, sanding, making suggestions and bringing us food. To top it off he insisted we use his "Easy Racers" van for our long trip. The next evening we were in the Nevada desert near the unusually supportive town of Battle Mountain. I admit I was under stress and sleep deprived, but I did have a surreal experience. It may sound like a fatigued F5 jet pilot's report of chasing a UFO.

The new black carbon shell of the KE was unfinished. We were using the original 17" front and 700c rear tire, and the running gear was in need of cleaning and oil, but we had made it to the race! I fumbled at the job of taping as I sealed my son in his completely impractical, unproven vehicle.

We were given an exact launch time. The sun was setting in the quiet, scenic desert. Had I covered all the essentials? The radio works.

Sealing the front wheel was the last step. We were ready. It was a go as I balanced the KE until Matt could balance using video alone. The KE was off on its maiden voyage into the unknown. Would we really get some laminar flow? Could Matt control it at speed by video? Could he handle wind gusts?



Why are we doing this anyway???

I ran back to the Easy Racers near new V8 Van and floored the monster. Matt had already disappeared from view. In short

order the van was going over 95 mph and being held back by some jerky safety over-ride. The KE was still not in sight. I began to worry. I must have missed Matt, he is out visiting the sagebrush or worse! I better turn around and find him! Then I saw a black speck flickering in the distance and attempted to make radio contact..

No luck. It was about 2 miles plus from the start when I caught up to within about 200 feet of it. There was this weird reflection on the small black ellipse ahead of me. It looked like a reflection of two metallic-like legs, pedaling in a dark oval window.



This object was going best I could tell about 85 mph. If it was Matt he must be in top gear (90 tooth chain ring and 9 tooth rear cog) and pedaling 110 rpm. I slowed a little and the black oval got smaller. Whatever it was, it was moving. I know what it's like to stick my hand out the window at 85 mph. Doubling the speed of an object through the air requires eight times the power.

I yelled out 85 on the radio, no response. Was it Matt? What ever it was, it was using up about 1/4 of the width of the road as it floated side to side.

I kept giving the speed and distance over the radio. still no response.

After 0.5 miles at 85 it slowed gradually to 75 for about 2 miles. About a mile out from the official traps, the pulsating reflection vanished and the black oval slowed down and went thru the traps at what I thought was 65 mph (officially 68.32). As I passed the object the elliptical form transformed into a sinister torpedo moving down the remote road. I stopped my car and waved the object down. It stopped before me and sat silently. I opened it up.

Inside there were no surprises. Just Matt, excited the bike could accelerate faster than he figured. I wish now I was more prepared and bought a video camera. I wish I had timed his

5.4mile run. Assuming those metallic legs were an illusion and not an extraterrestrial riding tandem, it was the fastest 5.4 miles a human ever traveled on his own power. If Matt had a legal onboard measuring device he would have blown away every human speed record from 200 meters to 5.4 miles WOW! My mind began to spin around the possibilities... That evening I told Gardner he would have to buy a faster van.

Ps. I know the speedometer on the van is accurate within one mile at 90 mph.



The pleasant Nevada messenger of such facts also said Cameros like his lack speed control chips and the only guy to outrun one blew his engine. Next year I am going to ask a messenger if he will do the pursuit driving while I collect hard evidence.

John Weaver, MD

<http://home.earthlink.net/~ccbroomeweaver.html>

<http://www.praxcomm.com/weav.htm>

<http://www.wisil.recumbents.com/wisil/speedruns2000/worlds-fastest-bicycle-2000.htm>

## OzHPV Business

There have been a few changes we ask you to note.

\* The mail address for OzHPV is now 10 Abbot Grove Clifton Hill Vic 3068.

\* The members only Web page on the Internet has a new address. It was decided the address ought be changed periodically so non-members would find difficulty accessing it. (Web address deleted for security)

\* Because of a request from a non-Australian resident we now have an international subscription rate for OzHPV at \$30. There is also a suggestion that the Corporate membership section be dropped and the HPV related businesses join as individuals.

\* Our new OzHPV President has proposed the following decision making process due to our lack of physical meetings.

Members of OzHPV can formalise a decision as a motion, an official paragraph, and forward this to the president by email. President will collate these, and as they see fit, announce an vote.

President will forward the one or more motions to the new E-groups list.

Members have 7 days to vote. Each member has one vote. President will collate votes. A quorum of 3 votes is required for a successful decision (as per OzHPV rules on website).

Appeal. A decision can be appealed via email to the president. Contentious decisions will be discussed in the next HUFF and votes collected by email or phone.

Notification - via email and record on website.

### Goals from the New President

Here are some goals I would like to achieve over the next year, including next years Challenge.

- Increase OzHPV membership to 100+.
- Increase number of non-OzHPV Challenge competitors (eg from Shepparton) to 10+.
- Increase number of spectators from Shepparton to 20+.
- Make a financial profit of \$100+ per year. (to guard against possible future losses)
- Get sponsorship from non-HPV manufacturers of \$200+.
- Hold events in Melbourne and Sydney that attract non-HPV spectators of 100+ (eg HPV's in the mall) and at each event distribute 50+ leaflets on OzHPV.
- Institute a decision making process using email.
- Make the website the "official" site of our affairs - eg up to date, what is on there is the official correct info. Get OzHPV members to treat it as such. Secondary publicity via HUFF to non on-line members.

### Jeremy Lawrence

Criterion Final

Eric Vandamme - Road race.



Tony Jack - Road race



Scott Setford - Enduro/Off Road



### 2000 AGM

Listed below are the now current positions held by OzHPV members and their relevant details.

**President** - Jeremy Lawrence - [jeremyl@cfcl.com.au](mailto:jeremyl@cfcl.com.au)

**Secretary** - Rudolf Werner - [rudolf@fourthwave.com.au](mailto:rudolf@fourthwave.com.au)

**Membership Officer** - Steve Nurse, 10 Abbot Grove Clifton Hill Vic 3068 - [cesnur@eisa.net.au](mailto:cesnur@eisa.net.au)

**Treasurer** - Glen Forrest, Ph: 0402-140-600 PO. Box 785 Woy Woy NSW - [forrest\\_glenn@hotmail.com](mailto:forrest_glenn@hotmail.com)

### Regional Committee Members

NSW - Ian Humphries - [ianh@chw.edu.au](mailto:ianh@chw.edu.au)  
Ph (02) 9550 2805 (home) (02) 9845 3988 (w)

VIC - Steve Nurse - [cesnur@eisa.net.au](mailto:cesnur@eisa.net.au)  
Ph 039481 8290 } &  
Ian Knox - [iank@melbpc.org.au](mailto:iank@melbpc.org.au)

Dungog - Ken Rubeli

Albury - Lloyd Charter

SA - Robert Brauthensal

### Speed Record Attempt Committee:

Mike Dennis - [mike@faceng.anu.edu.au](mailto:mike@faceng.anu.edu.au)  
Ben Goodall - [trisled@start.com.au](mailto:trisled@start.com.au)  
Phillip Millar

**Public Officer** - Chris Curtis - [chris0112@hotmail.com](mailto:chris0112@hotmail.com)

**Newsletter & Web Page Editor** - Timothy Smith - [tstrike@ihpva.org](mailto:tstrike@ihpva.org) 143 Upper George St, Devonport, Tasmania. Ph 0364234559



Splash



Chris Moseley - Twin Slalom

Adrain Gotts Vs Notre Dame College - Twin Drag



# Round the bay in a day (RBD) the bent way.

Andrew Maticka

I arrived with my 20/20 GTS in Port Melbourne at about 5:30am to find a couple of thousand cyclists going in all directions. (You nominate your direction, either anti-clockwise or clockwise prior to starting the ride - My nomination was anti-clockwise) I spent quite a lot of time looking and waiting for the "Start" then eventually worked out there is no official start and you just go when you feel like it. I asked a few cyclists where to go and they said - "Just follow the crowd". So I did. I was sucked along with several packs at a record breaking pace. When we got to St Kilda I thought, "Hey isn't the sea meant to be on my left hand side".



Criterion Final

Realising that I was going the wrong way round, I double tracked back to the start and joined other packs crossing the famous Westgate Bridge following a snake of red tail lights into the sun rise.

I discovered that the RBD wedgies ask the same dumb questions about recumbents as normal people, "That looks comfortable", "Are they more comfortable?", "What is like going up hills?", "How much do they cost?", "You could go to sleep on that thing", "Watch out for the low rider", "It must be dangerous in traffic!", "You have done well to get this far in that thing!" etc.

The remainder of the trip was uneventful and well organised, but fast! I was amazed to find that even over weight men in their fifties and children scream along at 30km/hr round the bay. Clearly the average RBD punter does a lot of training. The first sixty or seventy kms seemed to whiz by followed by tedious rolling hills to Queenscliff. My overall average (including stops and rests) to Queenscliff was an astounding 27km/hr.

Things slowed down when I arrived at Queenscliff. The ferry from Queenscliff to Portsea was a real saga and took over 2 hours due a long queue. On the final stretch from Portsea back

Criterion Heat



to Port Melbourne we were helped by a light tail wind as the weather warmed up to a toasty 27 degrees.

I finished the official 210km plus my initial detour of 20km in about 12 hours.

I spotted another two recumbents - a SWB who I didn't get to talk to and a GTR 26/20 owned by Rita? which must be one of the first dozen Greenspeeds ever made. I don't understand why more HPV's were on the route as it is a classic flat course.

Maybe next year we should get together and form a Bent RBD group and show what recumbents do best - go fast on the flats!

### Tips for Bent RBD's

The round the RBD ride is a 210km "fun ride" to raise money for the Smith Family and Bicycle Victoria held in October 2000. Riders travel in both directions around Port Phillip and catch

a ferry across the harbour entrance. The ride is fully supported and is on relatively busy metro roads which have wide a rideable shoulder.

- \* Places for the anti-clock wise trip fill up quickly as it is arguably the best direction - enter early to ensure you get a place
- \* Start as early as possible to avoid the Ferry queues - the Westgate bridge opens at 6.00am.
- \* Remember which direction you are going before you get to St Kilda.
- \* Be prepared to be a curiosity of several thousand cyclists.
- \* Don't be put off by the distance, the course is fairly flat and easier than many undulating 100km rides that I have done.
- \* Train as much as possible for distance riding so you aren't passed by Grannies and children.
- \* The course is well supported with drink stations, toilets and shops - Travel light, you only need a repair kit, some snacks and a rain jacket.



Adrian Gotts on Paul Sims Leaning Trike

Criterion Final



## Disc Brake Hubs

We spent some time at many of the international bike shows earlier this year, examining all the disc brake hubs on the market.

We concluded that none of them were really the suitable for our trikes, simply because they were made for bikes, and double sided fixing.

Thus we have designed our own, and got a local engineering firm to CNC machine them from a solid billet of 6061 alloy.

They have the high/low flange design with the outer flange overhung from the bearing, like a single sided fixing wheelchair hub, so that the axle and hub do not protrude much, if any from the spoke flange, and there is a much greater distance across the flanges (66mm).

This gives much better lateral strength to the wheel to take the much greater side forces on trike wheels, compared to bike wheels.

There is also enough room (16mm) between the disc brake fixing and the hub flange to use the Hope number 1 calipers, which are symmetrical, so they can be mounted the same way on both sides of the trike.

As the disc fitting is the standard M5 x 6, they will also take most other disc brakes. The bearings are 6001 2RS, to take a 12mm axle.

We have tested the hubs by bashing the trike over kerbs at speed, and unlike a number of hubs we have tested, the rim and spokes failed before the hub. We also tested them by having two people on the trike with most of their weight over one wheel, and locking up the wheel. The brake arm failed before the hub.

Finally we tried over tightening the disc mounting bolts, and they broke before the holes were striped :-)

Knowing how hard it is to source suitable parts for trikes, we are now making these hubs available to others - just email us for our parts price list. I'll see if I can get some photos taken for the web site.



Robert Braunsthal on Yellow Peril - Time Trail

Regards, Ian Sims, Greenspeed.  
**Email [ian@greenspeed.com.au](mailto:ian@greenspeed.com.au)**  
**<http://www.greenspeed.com.au>**

## Coming Events for 2001

Ed Not a lot here - Do you have any to add.

### Sydney Recumbent Riders

Sunday February 18th: Description: Social ride and test ride / demo day - Come along and have a squiz! Starts at:

Lane Cove Park. Grade: E/M 50km Contact: Ian Humphries 10 days prior to ride ph (h) 9550 2805

Saturday February 24th: Description: Get 'bent and see some scenery.... Starts at: Kogarah railway station Grade: M/H 50/100/200km options Contact: Ian Humphries 10 days prior to ride on ph (h) 9550 2805

Saturday March 31st: Description: Southern Highlands tour - lights necessary for 2/300km option Starts at: Kogarah Railway station Grade M/H with a choice of 100/200/300km options Contact: Ian Humphries 10 days prior to ride ph (h) 9550 2805

Sunday April 22nd: Social ride and demo day. Parramatta/Windsor - Come along and have a squiz! Starts at: Parramatta Park / Windsor Grade: E/M 50km Contact: Ian Humphries 10 days prior to ride ph (h) 9550 2805

**If this Newsletter cannot be delivered please return to:**  
**OzHPV Inc**  
**10 Abbot Grove**  
**Clifton Hill Vic 3068.**

