

## Letter from the Editor

This is the last Huff for 1999, that's makes 6 editions for me and it's been quite a challenge. Being in Tasmania and unable to attend the years' events I feel a little removed from what is happening Still it's been quite enjoyable and I'd like to thank those people doing the work on the sidelines in OzHPV. At the risk of leaving someone out I would like to specifically mention Wayne Kotzur, Paul & Lindsay Segal, Peter Heal, Steve Nurse, Ian Sims & Ian Humphries all of which I could not have produced the Newsletter and they are also constantly involved in many other OzHPV activities.

It makes interesting reading having articles from a broad range of people so can I encourage you all to consider sending in an article to let others know what's happening in your part of town.

Remember all the minutes and the latest HUFFs are always available in the members only section of the OzHPV Web site.

<http://sunsite.anu.edu.au/community/ozhvp/members.htm>

Happy Christmas and new year and hope the Y2K bug doesn't kill your electronic bike computer!! ;-)

Timothy Smith



Mike Dennis's Midnight Special  
Photo by Ian Humphries

## 1999 OzHPV Challenge

The event went well, there were thunderstorms both Friday and Sunday nights but the weather apart from gusty conditions was good. Sea Scout food was excellent as usual. Lots of good fun and hardly any significant accidents - only one hospitalisation (observation) for a unicyclist. The usual suspects plus more partners. Only three women entered, about five juniors and about 40 regular/open competitors.

Some of best things were:

- ◆ Ben Goodall's fully faired trike (no4) which looked great [and was quite fast]
- ◆ A non 'bent rider [Peter McNamara] who showed up, liked [not Harry's but] Paul Sims' nearly unrideable front drive front steer low racer bike and raced it in quite a few events - I assume ignorance was his excuse
- ◆ The post event flooding of the skid-pan to let the trikes have some cool fun while the scorers were getting hot under the collar.
- ◆ Having all the scores done on time and actually be able to give away all the medallions before people left the course.
- ◆ Serious talk about having a record speed attempt subcommittee to establish a national record with lots of attendant publicity.
- ◆ Possible venue change for Challenge if we can get the States or a regional centre and subcommittee to grasp the nettle.



Robert Braunsthal on his SWB Greenspeed Bike in the road race, MO614

Duncan Cleland was computerising the final points tally and producing a spread sheet. Lindsay Segal took minutes.

Wayne Kotzur

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OzHPV Challenge Results																		
1999																		
Reg			Cat.	Bike	Total	Final	Hill	Road	Time	Enduro	Shop	Twin	Slalom	200	200	200	Junior	Senior
No.	First	Last	OW/J	Type	Pts	Place	Climb	Race	Trial	Race	Race	Drag	Place	Sprint	Sprint	Sprint	Crit.	Crit.
							Place	Place	Place	Place	Place	Place	Place	Place	Time	Km/H	Place	Place
1	Harry	Gordon	O	TRI	24										16.12	44.67		
2	Keryn	Wallace	W	TRI	26							6			19.41	37.09		
3	Chris	Moseley	O	Tri	37	6		3	8		5				14.69	49.01		3
4	Ben	Goodall	O	Tri	43	4	7	1	1			2		1	11.99	60.05		
5	Lloyd	Charter	O	Tri	16							4			15.02	47.94		
6	Stephen	Howe	O	SWB	26							6			15.35	46.91		
7	james	Howe	J	LWB	32							6			18.53	38.86	5	
8	Natasha	Howe	J	MWB	21										14.77	48.75		
9	Ross	Harrop	O	LWB	21										15.83	45.48		
10	Ken	Wilson	O	SWB	30	11					5				16.57	43.45		
11	Tony	Jack	O	SWB	29	13			7		7	5			13.63	52.82		
12	Robert	Braunsta	O	Tri	33	10					5	5			14.05	51.25		
13	Ian	Knox	O	SWB	28							6			15.29	47.09		7
14	Ian	Humphries	O	TRI	68	2	1	2	2		10	5	4	7	13.3	54.14		1
15	Warren	Knox	J	Tri	26										17.61	40.89	3	
16	Evan	Wills	O	SWB	39	5	5			5	4				14.62	49.25		6
17	Philip	Millar	O	SWB	25							6		6	13.18	54.63		
18	Mike	Dennis	O	TRI	37	6	6	5	4			6		3	12.92	55.73		
19	Les	Bell	O	TRI	24						5				18.28	39.39		
20	Paul	Sims	O	Tri	71	1	3	4	2	2	2	3	3	5	13.09	55.00		2
21	Owain	Williams	O	SWB	21										16.57	43.45		
22	Bill	Shelley	O	TRI	25							4			15.12	47.62		
23	Helen	Curtis	W	SWB	30	11					5				16.81	42.83		
24	Adrian	Gootts	O	SWB	29	13					2				14.52	49.59		8
25	Paul	Segal	O	SWB	29	13			6						13.77	52.29		8
26	Peter	Hollaway	O		29	13	8	6			7	6	8	8	13.61	52.90		
27	E	Vandamm	O	SWB	26					6					16.63	43.30		
28	Ken	Rubeli	O	SWB	52	3	2	7	5	7	5	3	6	4	13.07	55.09		
29	Jason	Forbes	O	TRI	26							6			19.19	37.52		
30	Michael	Rogan	O	TRI	24						5				13.97	51.54		
31	John	Nicol	O	TRI	35	9	4	8				1	5					5
32	Roger	Anderson	O	TRI	18							6	1					
33	Josh	Anderson	O	LEG	37	6				4	4	6	2					
34	David	Anderson	O	LEG	22							5	7					
35	Steven	Anderson	JR	LEG	25					8							1	
36	William	Reid	O	TRI	21										18.25	39.45		
37	Glenn	Forest	O	MWB	9					2								
38	Allison	Thomas	W		21										19.93	36.13		
39	Giles	Puckett	O	TRI	24										17.24	41.76		
40	Andrew	Puckett	J	TRI	27										17.89	40.25	2	
41	Susan	Forrest	W	TRI	3													
42	Stephen	Davidson	O	SWB	14						6							
43	Stan		O	LWB	15										14.72	48.91		
44																		
45	Ben	Goodall	O	MTN	10					1								
46	Ben	Goodall	O	TRI	8						2							4
47																		
48	Jack	C			6													
49	Ian	Humphries	O	SWB	9									2	12.57	57.28		
50	Erin & Lloyd	Cleland	J	TAND	7												4	

## A Newbies' 99 Challenge Report from Owain Rhys Williams

Apprehensive and eager in equal measure as we filled Ken's van with bikes and trikes and towed a fluffy toy down to Canberra. I was pleasantly surprised by the number of participants, and from talking with people it appears to have developed quite a loyal following. What was nice to see is that unlike many other specialised events that I have been to, there is no separateness between newcomers and old, everyone gets along, has a go at everything, and gets to try all of the vehicles. For someone like myself, who had entered the Challenge on Moz's SWB which I'd only ridden twice, the ability to try all of the different bikes and trikes was great. There were a number of LWB/CLWB bikes which I rode, but although I found these very easy to learn to ride (quicker than any of the other designs) I was always afraid that the front wheel was sliding out from underneath me.



Ian Humphries - Second Overall 9310



Paul Sims and Ben Goodhall with Medals, 9310

The trikes definitely gave me a real adrenaline buzz. That and the additional presence of the skidpan. Their three-wheeled stability made me much more confident in cornering and general speeding around. It was very straightforward to hop onto any of the trikes and pedal off, feeling reasonably comfortable, despite the different steering arrangements.

However, my favourites to ride were the SWB bikes, mainly because of the positive feeling when turning. I especially liked the very reclined SWBs. I am still uncertain as to whether ASS or USS is the way to go. I feel more comfortable with the ASS, at high and low speeds, although Evan tells me that this is just a question of getting used to USS. I do like the direct connection in ASS, as some of the USS bikes that I tried had loose steering linkages. However, one of the downsides of the many SWB bikes which I tried is the overlap between heel and front wheel

(my legs are of medium length), and it can take some getting used to when trying to corner sharply. I also find SWB bikes to be less stable at low speeds than LWB ones. Seat height for all of the bikes is important, as I found some bikes to have the seat a little too high, and this made frequent stops a bit of a hassle.

In the Challenge itself, it was great fun to take part in the many different events, great that there was such variety in events as well, not just straight-line speed tests or oval track racing. I found it both exhilarating and scary to be flying down the hill in the street race and to be overtaken by Ben's big blue thing and at the other end of the straight to have Paul's frantically pedalled trike (it did look like a space-egg, no matter what everyone else told me) fly past me up the hill. The shopping race was interesting, with the different carrying methods used by some people a little dubious in practicality, and especially when competitors lost milk bottles and had to make the decision of whether or not to go back for them. Not being a very stable starter, I found hurried standing starts to be fairly haphazard, as I found in the twin drag when I



Criterium Leader Ian Humphries, M1107A

pedalled off the side of the road! The criterium was good fun, and the off-road course was great to watch, especially some of the competitors using massively inappropriate vehicles for the terrain.

I had a great weekend at the Challenge, got to meet many people, and would encourage anyone thinking about coming along next year to do so. Thanks to Wayne, Duncan and the others for putting the effort into making it so much fun. Think I might have my eye on a 'bent.



Page 3 Peter Holloway, 'Reflections of Freedom', M1014

# Greenspeed runs 1st and 2nd at Canberra.

At the National HPV Championships at Canberra, Australia, November 13 & 14th, Greenspeed trikes won 1st and 2nd places overall.

This event consists of a number of races held at the Sutton Rd. Driver Training Ground. The 2.5 km circuit has a long main straight followed by a bend which progressively tightens and climbs at the sametime until it gets quite steep, and reaches 180 degrees. It then drops, through a water splash, has a tight left hander, followed by a right handhairpin, and winds around, up and down, to sweeping down hill bend back on the main straight.

Points are awarded for each race that a rider competes in on the same machine, the idea being promote the most practical machines.

This year Paul Sims decided to use a modified GTR touring trike. It had a lower seat, by using the dropped GTS frame, in light gauge tubing, but retained the more upright 40 degree seat position of the GTR tourer. Ground clearance was improved over the GTS by compressing the steering.

To improve the aerodynamics of the more upright seat, he used a cut down Bullet nose cone, which was cut off at a rearward sloping angle, just in front of the front wheels. It allowed easy entry and exit, full body lean to each side, and was easily removable.

Performance was better than expected, with an estimated 5kph improvement in the road race, time trial, and sprints.

Without the fairing, and a knobby rear tyre, he also performed quite well in the off road race, being the 1st recumbent home in this event!

Thus he managed to amass enough points to edge out Ian Humphries on his Greenspeed GLR race trike, who was faster in both the road race, and the time trial.

Congratulations to Paul and Ian and all who competed.

Ian Sims, GREENSPEED

Keryn Wallace on Squeeky in Twin Drag, M0804



Stephen and Natasha Howe in 200m Sprint , M1007



# For Sale

1/ Recumbent Bicycle, Aluminum bonded/riveted A-frame, 12 speed, USS, 20" front, 26" rear wheels, contoured aluminum/eva seat. Also included: tailcone, front windshield, fairing and 1" travel suspension. Optional Sturmey and Archer hub brake at \$50 extra. Raced at the HPV championships in 95/96 under the name 'Zen Yokel". Ready to go at \$300 (ono) Contact Greg Rich, 29 Darley St, Katoomba, 2780 NSW Ph 02 47391075 or AH 02 47827335.

2/ Mild Steel Weld-on brackets to attach 40 O.D. Bottom bracket shell to 35mm square tube. These brackets are made in 2.5MM mild steel and are available for \$12.00 Aus per pair plus p & h from Steve Nurse, phone (03) 94818290

Trisled, with disk brake, M1020, M1016, M1017



Ben Goohall Beating Ian Humphries in the twin drag, M0811

Ben Goohall - Full Faired Trisled in 200m sprint, M0923A



Start of Criterim Final , M1104A



Roger Anderson on Legend in the Slalom, 'Ouch' , M0900A



Jon Nicol's Ultra Swift trike, M0705



Paul Sims's Front Wheel Drive , M0712



Ian Humphries in Road Race, M0611



Helen Curtis on SWB Green bike in Road Race, M0609



Start of Road Race , M0605



Ben Goohall in the full faired Trisled at the hill climb. M0604



M0606



Interior of Trisled. M1022

Ian Humphries in Shopping Race, M0722



Overall Winner, Paul Sims, 9308



### A Photographer's View

Although I am not a professional photographer I believe that 5 years at the Challenge has improved my cycling photography greatly and oftended remembered as 'the guy that does the photo's'.

With skill comes expectation so I now find myself looking for better ways to share my work. It is for this reason I have photo's for sale in HUFF and on the OzHPV web site. Photography is only a hobby for me so I am just looking to cover costs, so far charging \$1 for each 10 x 15 cm color print plus \$1 postage. When ordering please quote the number beside each photo. If you would like enlargements or have suggestions of how I can improve my service please feel free to contact me.

Steve Seller  
311 Lawrence St  
Wodongs, 3690  
02 605 93357  
0419409719



### Challenge 2000

After 10 years at the Sutton Rd. Driver training centre, the Annual Hpv Challenge is on the move, and Ian Knox has started a small committee to organise next year's event "somewhere in Victoria". Plans are at a very early stage, and the first aim of the committee is to find a suitable site for the event, later we will be seeking sponsors. Any ozhpv members are encouraged to participate in this committee, sets of meeting minutes are available, just email me on cesnur@eisa.net.au. Some meetings will be held during Melbourne HPV group rides and will include Vic. group business, ienext month's ride, coming events.

Email Ian & Kaye Knox : iank@melbpc.org.au

## Reflex Southern Alliance team wins the 1999 World Solar Cycle Challenge.

Adelaide, South Australia, Sunday October 24th 1999.

The machine was a Greenspeed GTS Sports Tourer with solar assist, and a Reflex full fairing.

The team pedalled a total distance of 1,434 kms, from Alice Springs to Adelaide at an average speed of 44.3kph, and a time of 32:20:52, winning outright by 2hrs 31min from the Swiss team of Sprit of Business, and winning their class (C2) by 3hrs 7 min. from the UK team, University of Southampton.

I'd like to congratulate the riders, who led from the 1st day, right through to last day, and worked hard for their win.

They pushed the speed up on the previous event in 1997, which was also won with a Greenspeed Solar Trike at 37.7kph. Thanks also to Monash University who engineered the cooling system for the riders.

I think this race shows the superiority of faired recumbent over ordinary diamond framed bikes.

In an effort to balance things up for the upright bikes (class A, partly faired) the organisers allowed them to use 105 kg of Ni cad batteries, whereas the fully faired recumbents in Class C2 were only allowed 12kg of lead acid batteries.

Furthermore, class A were allowed to replace their batteries during the day, and class C were not!

For more details on the race results and rules see:-

<http://www.wsc.org.au/Cycle/>

For more info. Greenspeed Solar trikes see:- <http://www.greenspeed.com.au/special.htm>

Ian Sims

(ED I expect to have some info on the commercially available Reflex fairings in the next issue of HUFF)

## Intrepid trikes seen in Perth

By David Doust

I got this message the other day from a local triker: There we were, driving across the Stirling Bridge at approx. 4.00pm this afternoon, when up in the distance we spied two little orange triangles fluttering in the breeze! As we got closer we could see two trikes making their way across the bridge. We could see that it wasn't Dave, too slow!! Oh No! I thought. Someone has stolen our trikes!

We pulled onto the verge and flagged them down as they grew near. I was so excited! We could see a man and a woman, obviously in touring mode. They pulled over and we excitedly told them we had trikes too! They said 'We have heard about you!!' To cut a short story even shorter, they have been cycling for three months from Darwin!! They met up with Phil

Torkildsen in Broome when he was there and he had told them all about the recumbent group. They are staying with family in South Fremantle for the next week and then with his son in Thornlie. They are Sharon & Patrick and are going to come to Gino's on Sunday. Isn't it amazing! The funny thing was, we were running late this afternoon, so if hadn't we wouldn't have seen them! They had come from New Norcia today. We didn't keep them long as they were dying to get to their destination. Sharon's bike comes in half for travelling by plane. Next year they are going to Europe. It was like being aliens and meeting one of your own kind. That must be what we look like riding together, except for all the gear.

We met them at our WA HPV meet at Ginos on Sunday. They'd ridden about 5500km through the Top End and will be here for maybe a month. One trike is a suitcase trike, with S and S couplings, the other an expedition trike, both from Greenspeed. These were the first that we'd seen in Perth. We had half a dozen trikes and Moultons, Brompton, LWB, SWB parked around the corner from the cafe. Someone commented that it was like being at the HPV Challenge in Canberra again. Interesting note is that soon as our long-range trikers go to Perth they went shopping for new pedals and shoes, amongst other things. Apparently clipless pedals and shoes to suit are really hard to come by in Darwin.

## Brief AGM info (Held at the Challenge)

Duncan Cleland reported that Oz HPV has approximately \$1,000 in the bank. The 2 events held each year run at a loss, especially the 6-hour race this year due to bad weather. Government grants and donations have kept the club financial to this point.

Lindsay Segal reported that we currently have 83 financial members and have a few new members from the Challenge weekend.

Duncan Cleland discussed a way of bringing all members closer together with the use of the Internet. The current committee is made up of mainly Canberra residents but it does not have to be so - this is a national club. If members have access to the Internet they can very easily connect to Internet Rely Chat using freeware called ICQ. We could set up one specifically for Oz HPV, and then hold our regular meeting over the Internet. It is just a matter of people typing their questions and answers or opinions for immediate response. Instructions and training will be provided.

## Committee Elections results:

**President** - Wayne Kotzur [wkotzur@dynamite.com.au](mailto:wkotzur@dynamite.com.au), Ph/fax 02 6236 8265 C/Post Office Gundaroo, NSW, 2620

**Secretary** - Paul Segal, [segals@tpg.com.au](mailto:segals@tpg.com.au), Post Office Box 1662, WODEN ACT 2606

**Treasurer** - Duncan Cleland  
[duncan.cleland@opensystems.com.au](mailto:duncan.cleland@opensystems.com.au)

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

**Membership Secretary** - Lindsay Segal, [segals@tpg.com.au](mailto:segals@tpg.com.au), Post Office Box 1662, WODEN ACT 2606

**Huff Editor & Web Master** - Timothy Smith, [timotsc@vision.net.au](mailto:timotsc@vision.net.au), 143 Upper George St, Devonport, Tasmania. Ph 0364234559

## Regional Committee Members:

NSW - Ian Humphries, IanH@nch.edu.au, Ph (02) 9550 2805 (home) (02) 9845 3988 (w)

VIC - Steve Nurse cesnur@eisa.net.au, Ph 039481 8290 & Ian Knox iank@melbpc.org.au

Dungog - Ken Rubeli

Albury - Lloyd Charter

SA - Robert Brauthensal



Jon Nicol winning the twin drag from Ben Goodhall M0816

## Australian Speed Record

At the last OzHPV Annual General Meeting held in Nov 99 there was serious talk about having a HPV record speed attempt subcommittee to establish a national record with lots of attendant publicity.

### Speed Record Attempt Committee:

Mike Dennis - mike@faceng.anu.edu.au

Ben Goodall - trisled@start.com.au

Phillip Millar

Wayne Kotzur - wkotzur@dynamite.com.au

### Sydney group:

There is a Sydney group interested in building a fully faired speed record HPV. Peter Heal in Canberra is also interested in contributing.

So far the group in Sydney comprises:

Ian Humphries - IanH@nch.edu.au

Giles Puckett - giles@research.canon.com.au

Peter McManus

Nigel Leggett

Chris Moseley

We are having another ideas meeting in Sydney in early December. Some of us met briefly in early November for preliminary discussions. We aim to liaise with other people around Australia as well as closely with those on the Speed record committee.



Ken Rubeli on unicycle, M0912A

More updates as we progress.

The International Human Powered Vehicle Assn have been recording all manner of HPV records for many years now and we are eligible to be included in that with Ian Humphries the Australian representative.

Also note there is (International) incentives to go faster through the:-

◆ .deciMach Prize For Human Powered Speed with cash incentives for the first human powered vehicle to reach or exceed 75 miles per hour under the conditions described by the committee.

◆ Dempsey - MacCreedy One hour Record Prize - \$25,000 cash prize will be awarded to the first single rider human powered land vehicle to equal or surpass 90 kilometers in one hour (55.924 mph).

## Greenspeed Faired Race Trikes run 1-2 with RWD and RWS

Saturday November 20, Greenspeed race trikes ran 1st and 2nd in the Class A Trial, in the 1999 RACV Energy Breakthrough at Maryborough, VIC, Australia.

This event is run on a 1.3km street circuit, and has grown annually since its inception in 1991. It is run jointly by the country schools, the City of Maryborough, and the Victorian motoring organisation, the RACV. This year 111 teams competed from 73 schools.

The main basis for the competition is a 24 hour race, using teams of 6 to 8 riders, 1/2 of which must be female for the A, B, and C classes. The general idea is design, construct, and race a Human Powered Vehicle. This has proved to be an exciting and very rewarding project for many schools.

Schools vary immensely, from very small primary schools to the very large colleges, and also in the level of expertise and facilities within the school and its community.

We have been involved since the beginning, in helping schools with parts, plans and kits, in an effort to raise the general level of HPV technology, and to enable those schools without the necessary technology to compete with a reasonable chance of success.

I have seen school teams compete successfully which have been led by teachers, parents, or students. Last year for the 1st time, to ease congestion on the track, the Primary schools were given a separate event, using a shortened 0.8 km track. I noticed that most of the primary schools that were competing, were using trikes which were either passed down from secondary schools, or/and were simply far heavier than needed.

Thus when a small primary school approached us for help, I thought this might be a good opportunity to experiment with a Rear Wheel Steer, Front Wheel Drive trike, as having the front wheels fixed would enable a more streamlined fairing to be built, increasing efficiency.

It was also a nice challenge to see if we could build a RWD trike which could handle the circuit, which has a number of right angle corners, as most RWD trikes I have seen are unstable beyond a certain critical speed.

We built a trike with 16" wheels all round, and after one modification to the steering, the bare trike competed well in a race in March this year. The school then built a Corflute and shrink wrap body for it, and the higher speeds demanded another couple of steering mods..

So that we could judge the performance the RWS trike against the known "normal" RWD, FWS layout, we also built normal pattern trike using 16" wheels and Reynolds 853 to make it as light as possible, going down one tube size and one gauge on the lightest trike we had ever built. The bare frame weighed in at 2.2kg.

The students reaction from riding this trike after their training trike, an old recycled standard size GTS, was "Totally Awesome", thus the trike so named for the race.

The school built new Corflute and shrink wrap fairings for both trikes, and they were named "totally AWESOME" and "green SPEED". Extensive training took place for the students, and they were constantly lapping in well under the course record.

The total weight for "Speed" was just over 20kg, and just under 20kg for "Awesome". The race manager declared there was no difference in performance between the two trikes.

Initial gearing was 63- 11/28 with the 16.5" diameter drive wheels, but with the fairings, this was raised to 73 - 11/28.

Practice times indicted that 500 laps were within reach for the 14hours of racing for primary schools. Last year's winning total was 429 laps.

During the race it was not obvious that "Speed" was a RWS trike, as both trikes circulated using the classical race lines through the corners. "Speed" was almost silent, due to the absence of any chain guide rollers - in contrast to trikes using fibreglass bodies which resonated, amplifying chain noise and roadrumble - the street circuit is far from smooth... Both trikes were constantly passing other trikes, and soon exhausted their hooter batteries! I was pleased to note that the students were using their gears properly, and maintaining a smooth high cadence no matter if they were climbing up to the back straight, powering down the main straight, or flying though "Crash Corner"!

The race was shortened by ten minutes due to a late start. "Awesome" won the race with a total 505 laps (404 kms) at an average speed of 29.2 kph and "Speed" came 2nd with a total of 498 laps (398.4 kms) at an average speed of 28.8kph. Tony Mirabella in "Speed" also raised the Class A record from 1: 34 to 1: 21.1767.

I'd like to congratulate Tyabb Primary School and esp. the riders for giving their best in winning Class A in the 1999 RACV Energy Breakthrough at Maryborough.

I believe they have advanced the science of HPVs, and helped us in the design of pollution free vehicles for our small planet.

Race results, including every lap time for every vehicle, are available at :-

[www.racetime.com.au](http://www.racetime.com.au) and general info about the event at:-  
[www.vicnet.net.au/~energybr](http://www.vicnet.net.au/~energybr)

We can supply info about our full range of parts, kits, and plans to schools at reduced prices, and will soon have a video available which follows Tyabb's preparation and participation in the event.

Ian Sims, GREENSPEED

## Upcoming Events

Being the end of the year there are very few events to run.

## Sydney Recumbent Riders



Robert Braunsthal , M0714

The next SRR ride day is in December probably Sunday 19th December, probably Centennial Park. Contact Ian Humphries. (02) 9550 2805 (home) (02) 9845 3988 (w) if you need any other details.

## WA HPV

Sunday 19th December: Meeting 9:00 AM at Gino's Cafe, (or across the street from it) on South Terrace, Fremantle (it's on the cafe strip). If you are in the Perth area and have a recumbent or are interested in recumbents, be there! We're there a couple of hours eating breakfast, drinking cappacino and talkin' bents. E-mail Geoff Law [geofflaw@bigpond.com](mailto:geofflaw@bigpond.com) or Gary King [ocean@wantree.com.au](mailto:ocean@wantree.com.au) if you have queries.

## SunRace 2000

February 11th - 20th : Solar Car and Electric Vehicle Challenge, 1790KM Sydney - Canberra - Melbourne through Wagga Wagga - Hay - Mildura - Swan Hill - Bendigo.  
<http://www.sunrace.com.au/>

If this Newsletter cannot be delivered please return to:

OzHPV Inc  
Post Office Box 1662,  
WODEN ACT 2606

