



# The Joystick

NEWSLETTER of the SOUTH AFRICAN POWER FLYING ASSOCIATION

VOLUME 9

ISSUE 3

DECEMBER 2004



*Picture by Christo van Schalkwyk*

Rand Airport is fast becoming the home of general aviation in the Johannesburg area. Pictured above is ZS-NCU, a Cessna C177RG, which is owned by Charl Barnard, pictured here in front of the Lebombo. Charl and a couple of friends (Christo and Fred) flew in from Kitty Hawk for breakfast.

A number of facilities have been created at the airport including the Harvard Café and the Sky Raiders Conference Centre, which is an ideal venue for a function.

There is also great interest in the building of hangars at Rand for light aircraft.

## LETTER FROM THE CHAIRMAN

Another year is almost complete and I think that SAPFA can look back over the year with some pride.

Our organisation is often accused of being interested in competitive flying only. If we look at the successes over the past year I think that SAPFA and Aero Club have achieved more in the non-competitive arena than in flying competition.

SAPFA and Aero Club have achieved a breakthrough in preventing or amending general aviation unfriendly legislation. A number of such amendments were proposed over the past year. In summary we prevented auto-pilots becoming compulsory for night flying, stopped the lower limit of Class A airspace being reduced to FL145 and prevented expensive WGS84 surveys being compulsory for all airfields.

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ATNS was also proposing new charges and an increase in the annual levy for light aircraft. After meetings with Aero Club, ATNS has agreed to exempt all light aircraft under 1200kg (previously 900 kg) from all charges. Thanks to Stan Oliver and Neil de Lange for the work done in this area.

While we have been fairly active in this area we have also ran a successful President's Trophy Air Race at Polokwane and sent Precision and Rally Flying Teams to Herning, Denmark to take part in the World Championships. We have also held a number of National and Provincial flying championships.

We need to increase our membership numbers. Contrary to what most people believe it is not to raise further income by way of subscriptions but rather to give us more weight when we negotiate with state and semi state organisations. We live in a country where numbers count.

All that remains is for me to wish you and your family a safe and healthy Christmas and New Year. If you are driving to your destination – be careful – it's dangerous down there.

#### FLY SAFELY

Chris Booysen  
Chairman



#### IMPERIAL BANK CFA Monthly Rallies

There has been a declining number of competitors at the various social, provincial and national events. Even the number of events organised has dropped.

In an attempt to reverse this situation the Central Flying Academy (CFA) took the initiative and organised monthly rallies starting in the latter part of the year. Imperial Bank has also lent some support in the form of sponsorship.

Five events have already been held with the emphasis on new competitors having some fun and the more experienced competitors having a serious challenge. More experienced entrants are also scored on a different basis and in a different category.

From reports from competitors the events have been a success. The weather was also kind for most of the events. Unfortunately the one held in conjunction with Fun 'n Sun in Rustenberg was an interesting one with a number of entrants aborting due to the terrible weather conditions. Despite the weather, 13 entrants still completed the event. Penalty points were high as it was almost impossible to fly in the

strong wind.

As can be imagined the results have been varied. Richard Halton, Guy Whitcroft and Kobus Nel have all appeared as winners. Coen Ackerman is also a name that is appearing at the top of the list.

CFA seems to have built up a committed group of entrants. Geoff Ireland, Frank Smook, Rob Makinson and Lawrence Bettsworth are some of the regulars.

Interesting to see the name of Ralf Dominc, Darrell Lush and Jason Beamish on the list of competitors.

The CFA rallies have proved that there are a number of pilots out there that want a reason to fly. These events have also given the pilots a chance to improve their flying skills while having fun.

Our thanks to CFA (Nigel and Willie) and Imperial Bank (Neil Delpert) for making the effort to arrange these events.



Contact details for all committee members is available on [www.sapfa.org.za/committee.php](http://www.sapfa.org.za/committee.php) or can be obtained by emailing [mail@sapfa.org.za](mailto:mail@sapfa.org.za) or phoning Chris Booysen at (041) 391 4400 (W) or (041) 581 3040 (H)

# SAPFA EVENTS 2004

## DATE

## VENUE

## EVENT

The calendar for the 2005 year will be finalised early next year after the SAPFA Committee meeting to be held late January or Early February

27-29 December 2004	Port Alfred	Port Alfred Air Festival (Crystal Watson – <a href="mailto:cwatson@mweb.co.za">cwatson@mweb.co.za</a> )
30 March to 2 April 2005	West Cape	National Flying Championships (Chris Booysen – <a href="mailto:mail@sapfa.org.za">mail@sapfa.org.za</a> )
26-28 May 2005	Tempe	President's Trophy Air Race (Kassie Kasselmann – <a href="mailto:race@sapfa.org.za">race@sapfa.org.za</a> ) 082 404 1642
16-19 June 2005	Wonderboom	South African Landing Championships (Dale de Klerk – <a href="mailto:venusdale@intekom.co.za">venusdale@intekom.co.za</a> )
16-19 June 2005	Wonderboom	Provincial Flying Championships (Dale de Klerk – <a href="mailto:venusdale@intekom.co.za">venusdale@intekom.co.za</a> )

SAPFA events can be found at [www.sapfa.org.za](http://www.sapfa.org.za) For a comprehensive calendar of all flying events – see the Calendar at [www.africanpilot.co.za/calendar.php](http://www.africanpilot.co.za/calendar.php)

## 2005 President's Trophy Air Race

**The Air Race will be held in Tempe in May 2005. Please let us have your opinions as to improvements you would like to see.**

Thanks to those that have already responded to the email request for suggestions. These have been passed on to the organising committee for consideration.

Entry forms are available.



## **Glen Dell**

Just after the issue of the last Joystick in August, the news arrived of the achievements of Glen Dell in the 6<sup>th</sup> World Aerobatic Championships held in Ljungbyhed, Sweden.

The World Championships comprises 3 programs. Program 1 is the "Free" program where the pilot chooses his sequence. In the next two programs each country chooses a sequence which is then strung together in a series of ten to twelve sequences. The series is "unknown" to the pilots.

Glen obtained Silver in program 1, Gold in 2 and a Bronze in 3. This gave him Gold overall. He is South Africa's first aerobatic World Champion. This follows straight on the heels of the

World Rally Championships Gold medal won in 2003 by Nigel Hopkins and Dale de Klerk.

The performance by Glen resulted in him being awarded the Lewis Lang Trophy as Pilot of the Year by the Aero Club of South Africa.



**Glen receiving his trophy from Aero Club Chairman – Stan Oliver**

Glen won his first competition in 1985 when he came first in the Sportsman's Class of the National Aerobatic Championships in that year.

What is little known about Glen is that he also took part in a number of rally and precision competitions and was the Free State Rally champion in 1986 and the Transvaal Precision Flying Champion in 1988. In fact in 1988 Glen entered three rallies and achieved two second places and one win.

While it is a long time ago I am led to believe that Glen was promised selection for the National team which did not happen. This led to Glen concentrating on aerobatics and he was therefore lost to the rally and precision flying teams.

Glen also served on the SAPFA committee in 1989.

I am sure that, once the body starts complaining about all the excess G forces Glen could be persuaded to get involved in precision flying competitions. I look forward to that happening!

## **Glen Dell – the early years**



***Glen Dell pictured here on joining the Smirnoff Aerobatics Team in the 1980's***



***Noel Adler congratulating Glen Dell – winner intermediate – Transvaal Regional Championships – January 1988***

## AVIATION PERSONALITIES

### PIET VAN WYK

Ek het groot geword met 'n pa wat in die oorlog was. Hy het my altyd vertel van die Landcasters, Hurricanes, Spitfires, ens. Hy het my breedvoerig vertel van die vliegtuig en die werking daarvan.

Destyds se vriende van ons daar in die Noordkaap, het 'n skoonseun gehad wat soms kom kuier het met sy Piper Cruiser. Hy het gewoonlik op die grondpad geland en dan na die woonhuis ge-taxi. Sondaar wanneer ons vir hulle gaan kuier het, het ek - toe nog 'n klein tjokkertjie – die hele dag net naby die vliegtuig gesit en gekyk en gefilosofeer oor die Piper onder die boom.

Later het ek verhuis na die Oos-Vrystaat en in die Kestell omgewing gaan woon. Ek het nogsteeds gedroom om te kan vlieg, maar was nogsteeds in die boendes wat vliegopleiding betref. Gereeld wanneer die "crop sprayers" die lande kom bespuit het, was ek by om te sien wat presies gebeur. Gewoonlik hang ek dan deur die venster en vra vir die loods allerhande vrae – soos bv. wanneer en hoe gebruik 'n mens die "flaps, trim", ens.

Ek het geglo dat as iemand vir my die geleentheid sou gee met 'n klein vliegtuig en 'n lang aanloopbaan ek dit sou regkry om te kan vlieg. Hierdie opinie van my het natuurlik heeltemal in duie gestort toe ek regtig met opleiding begin het.

Eendag toe ek weer so hang aan 'n vliegtuig en vrae vra, sê Ret Orsmond vir my: "Magtig man, hoekom gaan jy nie vir opleiding nie?". Ek sê ja, ek wil graag, maar Johannesburg en opleidingsplekke is vêr. En ek het nie tyd om gereeld

daarheen te gaan nie. Hy vertel toe vir my van Joggie Prinsloo, 'n instrukteur wat in Bethelehem opleiding gee. Net daar en dan is ek toe met my werksklere daar weg om vir Joggie by sy huis te gaan sê dat ek wil vlieg. So het my opleiding toe begin.

Terwyl ek besig was, loop ek 'n '68 model Piper Cherokee 180 ZS-FVD raak vir 'n hele R18 000. En toe gaan Piet van Wyk voort met opleiding, en dit in sy eie vliegtuig - teen R15 per uur. Toe ek alreeds solo gevlieg het, het Joggie wat ook 'n Med Res vlieënier was soms op 'n missie vertrek, terwyl ek steil draaie en "stalls" in die "GF-area" moes gaan oefen het. Nodeloos om te sê, dat terwyl ek besig was daarmee ek menige kere weggebreek het plaas toe, en almal uit hulle huise gejaag het – "low level" – natuurlik. Eenmaal het ek selfs op die plaas aanloopbaan gaan land.

Ek het my opleiding voltooi in 1979 en het die privaat vlieëry baie geniet. Later het ek 'n Piper Archer II, ZS-KFB – gekoop vir R40 000, en dit het net te lekker gegaan.

Eendag op 'n donderweerdag het die aanloopbaan op die plaas net skielik te kort geword en is ek so met die opstygslag deur hutte, hoenderhokke en drade. Ek het 'n pragtige noodlanding in die veld gemaak, en toe met 'n trekker die gebuigde vliegtuig huis toe getou. Daarna het ek toe meer krag vir ons dun lug gesoek en 'n Piper Turbo Arrow IV ZS-LWJ teen R125 000 gekoop. Nou kon ek ook saampraat oor wile op trek, "propeller en pitch".

In 1984 begin ek deelneem aan die Staats Presidents Wedvlug op Bethelehem met die Piper Archer. My navigator was oud Piper-man en baie presiese vlieënier, WK van der Spuy. Die gogga het my nou behoorlik gebyt. Dit was vir my baie lekker om vir omtrent 3 ure

met 'n vliegtuig soortgelyk aan myne te wedywer deur middel van tegniek. En natuurlik laag oor die mielielande te skuur. Daarna was die welbekende Colin Campbell van Pietermaritzburg my navigator. Later jare Dirk Willemse, 'n boer en ook Louis le Roux, 'n onderwyser.

Na vier wedvlugte, Bethlehem in 1984, Durban in 1985, Mmabatho in 1986 en Randlughawe in 1987 is die Turbo Arrow aangeskaf. Ek wou nog deelneem maar agv die slegte voorgee-spoed vir die Turbo het ek toe besluit om nie meer deel te neem nie en gaan rapporteer toe by Vic Kaiser in Margate en bied aan om te "Marshall". Ek het nou 17 agtereenvolgende jare as Marshall agter die rug, dus 21 agtereenvolgende jare as Marshall en deelnemer saam.

In die loop van die 21 jaar van die Resies het daar nogal snaakse dinge gebeur. Op Bethlehem het 'n boer gebel na die lughawe toe en baie kwaad gevra: "Wat de duiwel is aan die gang?", want daar het 'n vliegtuig net-net sy dak gemis, en hier kom hy weer een en weer....". Sy diere is ontsteld, wat gaan aan?

Ook vanaf Bethlehem het een van die deelnemers net skielik krag verloor en moes toe 'n noodlanding op 'n land uitvoer. Hy en sy navigator klim toe uit en lê op die vlerke en kyk hoe hulle maters verby kom. Later toe hy enjin se kant toe stap sien hy die tarentaal se stert wat by die luginlaat uitsteek!

Daar was 'n keer toe die Avion voor my opgestyg het op Randlughawe oppad na Pietersburg. Sy regterwiel het ingevou net voor die loods die vliegtuig wou optrek. Die stert slaan toe die grond, maar daar gaan hy! Op Pietersburg het die brandweer en Ambulanse gewag, maar hy het veilig geland. In Bloemfontein het twee dames



met hulle C182 'n voorwiel geskenk aan een Suid-Vrystaat se boer of sy werker, toe hulle deur 'n plaasheining gevlieg het. Hulle het kom land sonder voorwiel en bly leef om die storie te vertel. Dink net wat het die werker met die oulike "kruiwawielietjie" met "tupe" in, gedoen.

Daar is kere wat manne oorhoofse drade raak gevlieg het. Daar was natuurlik een keer toe die Marshalls nie die checkpunt Rooiberg kon kry nie. Party kere het Marshalls natuurlik uit hulle pad gegaan sodat die manne makliker die checkpunt kon kry. My eerste opsie was altyd maar veiligheid, maar omdat hierdie toegewyde aviators 'n hele jaar wag en baie geld bestee met hierdie geleentheid, wil jy hulle nie onnodig penaliseer nie.

Die keer op Margate het daar 'n Lear Jet en Cessna Citation deelgeneem. Hulle was so vinnig dat hulle die eerste dag al sou terug wees voordat almal opgestyg het. Hulle moet toe hulle rondte doen en kom land voor die res kon opstyg.

In Bloemfontein het iemand met 'n C172 uit petrol geraak en moes 'n noodlanding in die veld maak. Oppad van my checkpunt af het ek hom gaan soek, gekry, en 'n G.P.S lesing gesend na Hertzog lughawe om te sê waar hulle hom sal kry. Iemand het toe brandstof geneem en die vliegtuig uit gevlieg huis toe.

Groot aviators het al een jaar gewen en die volgende jaar so verdwaal dat hulle laaste gekom het. Voor selfone daar was het ons radioamateurs saamgeneem na checkpunte toe. Dit was dan radio met 'n teleskopiesemas plus 'n gewone motorbattery in sy houtkas om nie te praat van al die braaie en laaffensie nie – gewig.

Deesdae is dit ook nou G.P.S.'se, hulle mag nie gebruik word nie. Ek glo nie dis meer nodig nie want duidelik verdwaal die manne nie meer so baie nie. Ek dink ons moet 'n beker uitloof vir die een wat die ergste verdwaal het nl. "THE RACER WITHOUT GPS".

Die lugresies het darem ook sy voordele gehad. Ek was lid van die polisie reserviste en het vir hulle gevlieg. So kry ek eendag opdrag om op die tolpad 20km vanaf Villiers te gaan sit. Daar gekom was daar 'n enorme hoeveelheid polisiemanne met voertuie. Daar was 'n roof by Volkskas op Warden. Die verkeersmanne het hulle daar gekonfronteer en daar is toe twee rowers doodgeskiet en drie het ontvlug, dis waarvoor hulle my toe nodig het. Twee verkeersmanne is toe ook swaar gewond. Ek het toe neergestryk op een van die mooiste en grandste aanloopbane nog, want dit is breed en solank as van Durban na Johannesburg. Drie polisiemanne is toe saam met my die lug in. Na 'n rukkie spoor ons toe die een rower op en so word hy gearresteer. Later daag daar ook twee polisiehelikopters op. Die laaste twee verdagtes is toe 'n ruk daarna in Soweto gearresteer.

'n Week daarna kry ek 'n telefoon-oproep van ene Jan van Wyk – Burgerlugvaart. Kort en saaklik deel hy toe mee dat my lisensie ingekort is, ens. Na geen rede wou hy luister nie, want ek mag nie op 'n publieke pad gaan sit het nie. Daar sit ek toe sonder lisensie en of vergoeding van die polisie en of die bank. Danksy die lugresies ken ek toe vir Robbie Robinson – na 'n paar dae het ek toe weer my lisensie. Een van die helikopter loodse het my toe verkla.

Dit is baie opwindend in die veld waar jy op checkpunt staan veral as die manne bietjie laag verby kom.

Ek het altyd vlieg beskryf as drie dimensioneel, want jy kan die pad maak soos jy dit wil hê, lank reguit, kort draaie of afdraende soos jy dit verkies.

Vlieg is 'n baie groot voorreg. Die feit dat jy fisies geskik of gesond genoeg is en die feit dat jy of jou pa die geld kon voorskiet om dit te kon doen. Ek dink daar is baie mense wat oud en afgeleef op straat sit, hulle kon egter groot aviators geword het as hulle net die kans gehad het.

Met vele aanpassings op verskeie vliegtuie, Piper en Cessna en plus minus drieduisend vliegure tot my beskikking is en was dit nog altyd lekker om in die lug te wees.

Vir 21 jaar is ek saam met die lugresies en sy manne. Ek het elke minuut daarvan geniet en sal graag vir die volgende 21 jaar nog deel van die Presidents beker wedvlug wil wees al is dit in 'n rolstoel.

Groetnis

Piet van Wyk (alias Piet Veer, alias Piet Vlieg en deesdae Piet Bike)



### Provincial Colours

Provincial colours have been earned by the following members:

**Precision Flying**  
Wayne Bond

**Air Racing**  
Nico van den Berg, Johan Rautenbach, Wessel Vermaas, Pieter Lordan

## FLYING CLUB NEWS

Two prominent flying clubs recently held their annual dinners.

### Algoa Flying Club.

Their annual dinner was held in the ACSA conference centre on the first floor of the Port Elizabeth Airport terminal building overlooking the apron. There were a number of arrivals and departures early on in the evening which created a fantastic atmosphere.



*Chris Booysen, Irv Lee and Russell Phillips*

The dinner was a formal one and combined the awarding of wings and trophies with the annual social function.

Guest speaker for the evening was Irv Lee, a UK instructor and also a SA CAA approved instructor. He is entitled to do renewals of SA licences and conversions in the UK. Irv gave an entertaining speech on flying in the UK which he illustrated with slides projected on the wall.

Irv's talk was followed by the presentations. 12 club members received wings while another 13 members were awarded wings

in absentia. 5 members were recognised for completing their CPL, 2 for obtaining Grade I instructor ratings and one member had completed his Grade II instructors rating.

Trophies were awarded to:

- Chris Booysen and Jim Tucker - Best Position in the PTAR
- Bernie Sharp, Roger Thomas & Fred Stemmet – Joint Club Members of the Year
- Anton Janse van Vuuren – Best Licensed Pilot
- Russell Phillips – Pilot of the Year
- Russell Meara – Most Academic Achievements and also Student Pilot of the Year
- Roger Thomas - Dennis Jankelow Safety Award.
- Kibi Seii – Stirrer of the Year

At the end of the evening the traditional “Boat Race” was held between the teams of “Old Pilots” and “New Pilots”. The new pilots managed an upset and put their older compatriots to shame for the second time in 3 years.



*Kibi Seii receiving his award from Trevor Trow*

### Bloemfontein Flying Club

The Bfn Flying Club held their annual function in a marquee tent on the front lawn of the clubhouse. The organisers had a rush to clean up after a dust

storm hit the area in the late afternoon.

A number of SAPFA committee members, lead by Chairman Chris Booysen, attended the evening. They had arrived in Bfn earlier in the day to attend a preliminary Air Race meeting with Kassie, the 2005 Competition Director.

Chairman André Grobler got the proceedings underway at the beginning of the evening so that the formalities could be completed first and the rest of the evening could be used for socialising and partying.

Trophies were awarded as follows:

#### **Microlights**

- Most Flying hours - Flip Saaiman
- Best performance on club days - Pierre du Preez
- Most enthusiastic student - Bart Saaiman
- Best contribution to promotion of Microlighting - Boetie Herholdt.

#### **Fixed Wing**

- Bfn Club Air race - Dave Foster
- Best performance on club days - Kassie Kasselman
- Aerobatics - Kobus v/d Colff
- Spot Landing of the year - Lucas Wiese
- Navigator of the year - Jannie Marais
- Best contribution towards aviation - Andre Grobler
- Pilot of the year - Walter Walle

Once the formalities were over the T Bone steaks were served and the disco started in earnest.

Congratulations on an excellent evening that was enjoyed by all that attended.



**Bloemfontein Flying Club  
Air Race/Rally Day  
4 September 2004**

**By Deric Smith**

What was destined and advertised to be an Airshow here at Tempe, never materialized and instead the opportunity was grabbed up by Walter Walle and Jack Onderstall, who utilized this day for hosting a Family Day which included an Air race/rally as the main event of the day for fixed wing and a gaggle of microlight aircraft.

The committee members phoned and tasked other members to sign up who ever wanted to participate in this event finalised by a spot landing competition and the outcome was awesome - a healthy eleven entries were received:

2 x Rag & Pipes	ZS-DUM
	ZA-AMI
1 x Beechcraft V35	ZS-JYB
1 x Glassair	ZS-WBT
1 x Cessna Cardinal	ZS-NBB
1 x Cessna150	ZS-IKK
1 x Kis	ZU-AOU
2 x Cessna 210's	ZS-JYM
	ZS-MTR
1 x Piper 235	ZS-FVH
1 X Jabiru	ZU-OIL

Marshalls were posted at the turning points with Deric and Dewald being the furthest away, at Immigrant Station nearby Petrusberg, whilst others were at Tierpoort Dam and at Ibris (Krugersdrift dam).

The route flown was Tempe - Tierpoort - Immigrant - Ibris - Tempe.

One competitor, Martin Deysel who flew with Sarel van Rensburg, begged for their handicap speed to be changed from 106 to approx 85 (Jabiru ZU-OIL). This was met by a stern AIKONA from Jack. Their actual speed was very close to that so some can now also say "Was my face red"

Name	Reg	H/S	Gain/L race	Sec	Land	Photo	Quest	Total	Posl
David Forster	AMI	90	6:39	399	-40	-100	-40	219	1
Kassie Kasselmann	DUM	87	3:16	196	-20	-40	-40	96	2
Lucas Wiese	WBT	213	-0:22	-22	-20	-80	-40	-162	3
Shaun Hughes	IKK	137	2:27	147	-180	-160	-20	-213	4
Frans Nel	JYM	163.5	-1:29	-89	-100	-40	-40	-269	5
Sarel v Rensburg	OIL	106	-0:49	-49	-180	-20	-40	-289	6
Ray Gleimius	IVA	167	-1:07	-67	-180	-20	-40	-307	7
Kobus vd Colff	NBO	139.5	-2:48	-168	-100	-60	0	-328	8
Johann la Grange	MTR	163.5	-1:51	-111	-100	-100	-20	-331	9
Andre Grobler	AOU	150	-2:24	-144	-100	-60	-40	-344	10
Shona Hughs	FVH	95	-4:01	-241	-60	-140	0	-441	11

**The micro light pilot's & bombers**

Later in the afternoon, it became more suitable for the gaggle of seven micro-lights to take to the air for their stint of rallying around and declaring a war zone with the bombing of water balloons. Their results are:

Pilot	Reg	PLACE
Pierre du Preez	ZU-DJX	1 <sup>st</sup>
Boetie Herholdt	ZU-WST	2 <sup>nd</sup>
Danie Luyt	ZU-CUW	2 <sup>nd</sup>
Joggie	ZU-CTX	3 <sup>rd</sup>
Kelvin Joseph	ZU-BFP	4 <sup>th</sup>
Bart Simon	ZU-AHO	4 <sup>th</sup>
Philip Simon	ZU-WMI	5 <sup>th</sup>

The day was very well attended and with partying spirits now reaching maximum, in no time the braai fires were going, background music playing and members, family and friends were having a "lekker kuier". Thanks to Walter Walle, Jack Onderstall and others for making this day a fun day which ended with Doric's Disco and a dance. Consensus is that members want this type of action more - "DO IT AGAIN!!"



## **EASTERN CAPE RALLY CHAMPIONSHIPS Port Elizabeth 20 Nov 2004**

**By Roger Thomas**

For weeks leading up to the EC Rally, the question on one team's mind was - should we be looking to make the jump to open from the sportsman class?

As navigator, I had got used to sprawling instruments, map and myself over a nice comfortable, stationary table in the briefing room. Now enclose me in a tin can with no comfortable desk and turn us onto spin cycle. It was a worrying consideration.

We had some reasonable success in the sportsman class and had built up some great friendly rivalry over the last few rallies with another team being Tony van Vliet at the controls and the human GPS - Mark Snelgar. Also entered into the rivalry at the last Ritchie Rally was Paul Ferreira. We were wondering what these teams were going to do.

A few days before the event and in walks the navigator with a large piece of cardboard (from a Rotax engine box) to be used as a template to see how big a desk could be constructed in the back of a C172. Two days later a plywood kneeboard spanning the entire width of the '172 was ready. Hardly a kneeboard being that size! More like a lap board.

Following the desk fitment, the decision was made - Open Class it will be. Now that we had the desk bit sorted out, we just weren't sure what would happen when we were put onto spin cycle and contend with a desk that would be bouncing around. That would equate closer to a lap dance - well we can wish can't we?

We had prepared ourselves for getting used to not appearing at the top section of the results list - after all this was a provincial competition and there was going to be some serious competitors entering. Names like Ron Stirk and Barry de Groot were being spoken (and others that had represented SA

in the recent World's competition), so we had to know what we were up against. We were going to be happy with being somewhere from midfield onwards toward the bottom.



*Dave Perelson, Sportsman's Class winners Rod Crews and Jack Wiehahn and Denise Booysen*

Jan Hanekom had arrived in PE about three days before the event. I am not sure if he came down early to take a break from work, or whether it was to orientate himself. At supper the evening before the rally, Jan indicated to me that whilst driving around in a part of our countryside, that the farm fence lines were pretty accurate on our maps. Now I was scared - these guys are really serious!

I then heard that Mary de Klerk was not going to be coming down to PE - something about her or Barry being ill. Pity really - I needed to get re-current again with my map colouring-in skills that she had taught us a few years back at the same provincial rally. I can't remember if it was yellow highlighter for Trig Beacons, or if that was for power lines.

Friday night and it was briefing time. Dave Perelson, our competition director, went through the normal type briefing, and then gave us a bit of insight to some of the new rules. This was to be the first Rally in SA under the new regulations. Something about flying in circles and arcs and following features. This was going to be interesting. Added to this, there were some points

we were not going to receive clue sheets for until we had passed a certain point on route.

Saturday morning arrived and "lovely" South Westerly was doing its number. I had checked the TAF's and upper air wind charts before departing for the club - 17 knots on the ground and 30 knots at 3000 feet. The only knot I was worrying about after that was the one in my stomach!

On arriving at the club, Dave had indicated that they had re-calculated our times with a wind correction of 15 knots.



***Winner of the "Special" Class Jan Hanekom with Dave and Denise***

A quick call to my team mate and pilot Tracy Simms to ensure he was on his way. I then scampered to the aircraft and proceeded to set up. A neat trick I had seen at the 2003 World Championships was to use prestik and stick every instrument to the window for easy access. No having to scramble around to find your tools.

Tracy and I kept on assuring each other that nothing had changed. Since our first rally together our motto has been - "Let us go and have some fun!"

15 Minutes before take off time, and instructions were handed to us. The game was on!

There was one positive about plotting in the

cockpit - No sign of Glen Meyburgh to fluster me! (Sorry Glen had to get this one in). Glen was Chief of Jury for this provincial rally. I do believe he popped his head past to see how we were doing, but being under this unfamiliar pressure of open class, I was concentrating and the outside world simply did not exist.

There were some silly mistakes I made in the plotting, for instance between CP4 and 5 was an arc we had to fly. The arc had been provided on a map in the instructions with both points marked. I however wasted some time in plotting CP4 before I realized this. One of the other mistakes was so ridiculous I am not even going to share it.

I managed to have the 2 maps plotted before we went over the start, and was able to complete the headings by end of leg 1. Thank goodness, as with that wind, it was quite bumpy and I needed to get my head out of the cockpit before the knot in my stomach gained some altitude and made a non standard arrival.

The route was very different to past rallies. For one leg we had to follow a railway line - being the feature, which made it interesting - up until now all rallies consisted of was straight tracks. Once we identified one of the sidings on the railway track, we were able to plot the missing points that were not provided in the original set of instructions.

For the arc, I think my head should have been outside, as I think the additional workload on the pilot made it a little busier than normal and we did not do too well at identifying some of the en route photographs that were surely to be on the arc. The additional plots could have waited a little later.

A single check point eluded us as we flew straight over it, but as we were far too early for it, we discounted it as the correct spot. Later we found, as did many others (about 90% of the field), we had over flown the point and into the neighbouring Addo Elephant park and below the minima for national parks. Eina! In our analysis later, we concluded that the wind had not been as strong as

had been factored in, and thus made us 'early' to the point - being an into wind and a very short leg.

On returning Hans Schwebel was at the clubhouse, and we asked him how things had gone. He had found all the en route photos - and he had been flying alone! This confirmed our feelings as to where we would be placed in the competition. Later Jan Hanekom returned and also had found all the en-route photographs.



***Hans Schwebel – comfortable in the knowledge that he had seen all the photos***

It was a real treat to see and compete against some of South Africa's finest. It also demonstrated that rally flying is much about practice making perfect. This is shown very much by our own team of Brett Williams and his daughter, Christine, who improve with every single rally they have entered.

I think later that night in the pub, Tony van Vliet suggested that we should end our rivalry and for both teams to work together on taking on some of the other rallies held around the country. A great thought - watch out Eastern Cape may make a charge!

Final results were divided into three categories as a number of the pilots qualifying for open class either did not have navigators or, in the case of Anton Janse van Vuuren and Walter Walle, had brand new navigators that had never flown before.



***Overall Open Class Winners – Roger Thomas & Tracy Simms***

#### Open Class

- 1st Place T Simms & Roger Thomas
- 2nd Place T van Vliet & M Snelgar
- 3rd Place P Ferreira & B Manthe
- 4th Place B & C Williams

#### "Special" Class

- 1st Place J Hanekom
- 2nd Place H Schwebel
- 3rd Place R Phillips
- 4th Place W Walle & J Onderstall
- 5th Place A Janse van Vuuren (father and son team)

#### Sportsmans Class

- 1st Place J Wiehahn & R Crews (England)
- 2nd Place M Coutinho & S Mandel
- 3rd Place R Parmar & P Sutton
- 4th Place J Oates & G van Eeden
- 5th Place P Puren & G Wiggins
- 6th Place B Pilarczyk & K Seii

Thanks to Dave Perelson, Glen Meyburgh, Chris Booysen and all the marshals and helpers for a great day. Also a big thanks to all the pilots from outside of the PE area for taking the effort to attend one of our events.

After the event the participants watched the SA vs. England rugby match. Our English competitors had much more to talk about after the match.

## **The GPS STORY**

**By Jan Hanekom.**

I do not think there is one general aviation pilot who does not own or use a GPS receiver on most flights. We get into the aircraft, switch on the GPS, punch in some waypoints or routes and rely on this wonderful little toy to take us to the destination. And we do this without giving a thought to the technology behind it. Research has shown that about 30 million people are GPS users.

### **The past:**

GPS got known in about 1978 when the US Defence launched their Navstar satellites one by one until they had 24 up there orbiting at about 20KM above us. Civilian use soon expanded rapidly although initial accuracy was not very good due to the "Selective Availability" signal used by the civil receivers. Some years ago this was switched off and overnight we had small and cheap receivers with an accuracy of about 10 meters.

### **So how does it work:**

The signals transmitted from these satellites are very small by the time they reach our receivers – about one billion times weaker than the signal your TV set receives. The satellites transmit signals containing a navigation message with location info and the time when the message was sent. A sequence of digital pulses called the PRN code is also transmitted to help the receiver calculate the time lapse of the transmitted signals. Each PRN code is also unique to a specific satellite. By the way – the satellites have atomic clocks while the receivers have very cheap quartz clocks. Therefore it is important to remember that you can only take an accurate time from your receiver when it has locked onto 4 or more satellites. We have seen overnight errors of up to 10 seconds.

To calculate your position your GPS will measure the distance to three satellites basically by means of the time delays measured in each signal. In other words the time it took from transmitting it to receiving it. These distances or spheres will only

cut in two positions, one of them somewhere very high up in the sky and therefore the remaining intersection must be your position. This explanation is obviously very much simplified.

### **The future:**

There are various exciting developments that will enhance GPS use in the near future. From 2005 they will start to broadcast new signals in the military as well as the civilian or so called L2 band. In 2008 even more signals will be added. New receivers will therefore be dual or triple band receivers. These new receivers will use the different frequencies to compare the different delays of the different signals, take that out of the equation and then calculate the actual distance much more accurately.

### **What is WAAS?**

The so called WAAS ( wide area augmentation system ) designed by the US Federal Aviation improves the accuracy and integrity of critical GPS signals to one or two meters in position and two to three meters in the vertical. This is done by a network of ground stations at known positions. These positions are then compared to the GPS positions and sent to processing stations and sent to geo-stationary relay satellites, which in turn transmit it to WAAS receivers. So this will allow pilots to use their GPS to guide the AC down to the runway in zero visibility. Obviously there are also measures to monitor the system's performance continuously and correct it within seconds if needed. This is not the end of the line. There is also LAAS ( local area augmentation system ) that will eventually take over the final phase of the flight as well as JPALS (Joint Precision Approach and Landing System) where the goal is to guide aircraft onto pitching and rolling aircraft carriers where the altitude with reference to the moving deck must be controlled to within one meter!

So next time when you switch on your GPS – have a moment of appreciation for the technology behind it.

