

# QSOX PE



**THIS NEWSLETTER IS PUBLISHED BY THE  
PORT ELIZABETH AMATEUR RADIO SOCIETY**

**PO BOX 10402  
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6015**

**OCTOBER 2003**

## MONTHLY GENERAL MEETING

The monthly general meeting of the PORT ELIZABETH AMATEUR RADIO SOCIETY will be held on Thursday, 16 October 2003 at **the St Hugh's Church Hall, Newton Park**, starting at 20:00 (8 pm).

Mike Bosch ZS2FM will tell us about DIGITAL SOUND, with a brief reference to the latest digital sound mode transmissions.

Tea, coffee and biscuits will be laid on.

## Wrinkly Ravers

The next Rave will be held on 6 November. Please log this in your diary and come along. You'll enjoy yourself - albeit, as was mentioned last time, there is a small problem of acoustics and one does have a problem discussing matters of interest. It seemed to me that the further the others are away, the louder they are received, while those close by are swamped.

We had 13 members at the October rave, and someone asked whether Saddles is our final meeting place because of the acoustics. As the computer people say, it is the default spot. If anyone thinks of an alternative that we can visit, he can ask the bulletin readers to announce it and we can meet there for a change.

## FOR \$ALE ★ WANTED ★ SWOP

### **FOR SALE**

\* **HF Transceivers:** FT 200 with 6146 finals and AC PSU; Swan Astro. All sold state, 160 to 10 metres with AC PSU; Heathkit SB104 Solid state, 80 through 10 with AC PSU; Atlas 210 Solid State. 80 – 10 metres; Alda 104 Solid state 80/40/20;

**Receiver:** Yaesu FRG 7000

**Other items:** 4 element Create Design HF beam; CD 45 Rotator; 10 metre tower; Home brew linear 10, 15, 20 with pair 813's; Telequipment D 1010 dual beam scope; CB set modified to 28 MHz SSB; CB set modified to 7 MHz SSB; Solid state HF 100 watt linear 80 / 10; New 811A's; Secondhand 813's; Icom 2 metre mobile — Contact Roger on 044 532 7842 or email

[info@forestwagontrails.co.za](mailto:info@forestwagontrails.co.za)



## from *The* *Chairman*

**A**s they say in the classics “time flies when you are having fun”, and checking the calendar, it is just a handful of weeks before the silly season is upon us again!

Firstly, a reminder that the last formal meeting of PEARS for the year will be in the form of a social gathering at the QTH of Ashley, ZR2AG on Saturday 22 November. A map will be published in the next issue of QSX for those of us who have, as yet, not had the pleasure of visiting Ashley and Janet at their new QTH.

The Monday evening PEARS bulletin repeat and technical chit-chat, which started in September, appears to be winning favour amongst those members unable to participate in the Sunday transmission. Special thanks to Beavan, ZS2RL, for handling the recording and re-broadcasting.

The technical discussion that follows the bulletin is being very ably directed by Neil, ZR2NT. If you haven't yet tuned in on a Monday evening, you are really missing out on learning about some very interesting technical topics!

Our next monthly meeting takes place on the 16<sup>th</sup> of October. Mike Bosch, ZS2FM, will be giving a talk entitled “Digital Sound, With A Brief Reference To The Latest Digital Sound Mode Transmissions”. Mike has spent many years commissioning and maintaining cinemas, and with his wealth of experience in VHF dxing, this talk will be one not to miss.

While on the subject of meetings, attendance at meetings appears to be dropping. Please folks, this is *your* club – your participation and input is what has made us the number one club in the country. Allocate those two or three hours a month to being a participant rather than an observer.

Finally, if you have as yet still not renewed your SARL membership, please give the matter some serious thought. We have a new President at the helm who has promised to do his very best to transform the League into the organisation that most of us will be proud of – but he cannot do this without our financial support. Mail off that cheque before it's too late....

Happy hamming.

73

*Rory, ZS2BL*

## Power Failures

Last month I wrote about the power failure that affected a large part of the USA and Canada and, as far as I can recall, the only power failure of this magnitude that I have heard of.

One could well then come to the conclusion that this is such a rare occurrence that it is not likely to happen till some time in the distant future.

Yet very shortly thereafter, Denmark has had a major power failure. I have no further information on this.

Then on Saturday, 27 September, Italy has a power failure that blacked out the whole country for at least several hours.

Suffice to say that disasters are unpredictable and can have serious consequences, and we need to bear this in mind.

73

**AI ZS2U,  
Provincial Director  
Hamnet/ECARES**

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## TRANSMITTER TONE PROBLEM

As stated in last month's QSX that ZS3 noted both ZS1 and ZS2 as both having smooth tones is not necessarily correct.

The problem is solved by drawing up all possible combinations:

	1	2	3	4	5	6	7
ZS1	R	S	R	R	S	S	R
ZS2	S	R	R	S	R	S	R
ZS3	S	S	S	R	R	R	R

ZS1 could not have heard ZS2 and ZS3 as smooth because he would then have known his tone was rough, therefore no. 1 is out. ZS2 could not have heard ZS1 and ZS3 as smooth because he would then have known that his tone was rough, so no. 2 is out.

He could also not have heard ZS3 as smooth – the only combination left with ZS3 as smooth – because he would have known that his tone was rough, so no. 3 is out.

Knowing all this, ZS3 would know his tone was rough because all four remaining combinations show him as rough. 🗨️

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**Did you know** – that the world's largest and oldest known asteroid crater was here in South Africa? The asteroid, some 300 kilometres in diameter, travelling at a speed in excess of 55 000 kilometres per hour, struck earth just over 2 000 million years ago.

The small town of Vredefort in the Northern Free State is situated at the centre of the crater. On the Northern rim is

Johannesburg and Carletonville, and on the South-Western rim is Welkom.

There are four other smaller and more recent asteroid craters in Southern Africa, one not too far from Port Elizabeth, an estimated 150 kilometres. The size of this asteroid was 0,64 kilometre in diameter and crashed here less than 1,8 million years ago.

This is taken from an article in the March, 2003 issue of Popular Mechanics. 🗨️

# CONGRATULATIONS TO THE NEW PRESIDENT AND VICE PRESIDENT

When Hans Potgieter resigned as president of the SA Radio League, Graham Hartlett ZS6GJH accepted the position, and Peter Hers ZS6PHD was elected as Vice President.

We are happy to congratulate these two amateurs and wish them every success in their efforts to get the League back onto its feet. So far they seem to be doing a lot towards keeping members informed of what is happening up there.

Have you paid your subs yet?

## MINUTES OF THE MONTHLY MEETING OF THE PORT ELIZABETH AMATEUR RADIO SOCIETY HELD AT THE St HUGH'S CHURCH HALL, NEWTON PARK, PORT ELIZABETH ON 18 SEPTEMBER 2003

### Welcome

Rory welcomed everyone who made the effort to attend the meeting.

### Present and Apologies

As noted in the attendance register, as well as an apology from the Secretary ZS2AAW.

### Acceptance of Previous Meeting's Minutes

Proposed: ZR2NT, Seconded: ZS2U

### Matters Arising

Nil

### Correspondence

*In:* Various newsletters from other clubs. An email was received from the Boland Amateur Radio Club with regard to the ousting of the present SARL treasurer.

*Out:* After discussing the above, the meeting felt that correspondence should be addressed to the BARC and to ZS2CLI requesting the motivation behind the pursuance of this matter.

### Finance

The Treasurer reported on the Society's financial position which was accepted by the meeting.

To date 17 members had not renewed their subscriptions for the current year.

### Social

It was confirmed that the end of year Club social will be held at the QTH of ZR2AG on the 4th Saturday of November.

### Special Events

To date the scouting fraternity had not approached the Club in respect of this year's JOTA event. ZS2EHB to try and make contact.

ZR2NT suggested that the club should also

look into doing something with regard to the CQ HOU KOERS event as well.

### General


The Chairman suggested that the local Sunday morning reading of the SARL bulletin on 7,098Mhz should be discontinued as it could interfere with other transmissions at the same time on the same (40meter) band. There not having been any complaints in this regard, the meeting decided to continue with the HF broadcasts.

At the same time it was suggested that the League bulletin as well as the Club bulletin be broadcast on AM as non hams with AM receivers might find the bulletins interesting. With this in mind ZS2VM suggested that the Monday evening re-broadcast of the Sunday bulletin and the following informal talk should be advertised in the free "Whats On" column in the local weekly newspapers.

ZS2AE to investigate with the Border Radio Club who do AM transmissions as to the effectiveness of the AM TX.

ZR2NT reported that the Monday evening Net has so far been fairly well supported. ZS2RL suggested that the Monday evening bulletin and Net also be transmitted on 80meters (3.640 MHz). The meeting agreed.

The business part of the meeting closed at 20h25 and ZS2U explained to the meeting his "Transmitter Tones" fun problem that was printed in QSX.

After tea ZS2VM gave a brief talk in support of the "Direct Conversion Receiver" article that was printed in QSX. 

# GPS Guide for Idiots (like me....)

## Part 2 of 2

### 4. The GPS Receiver

#### 4.1 Clock Synchronisation

It was stated earlier that the receiver synchronises its clock with that of the SVs on an ongoing basis – how is this done?

Remember, the receiver only knows how far it is from a given SV – our position could be anywhere on the surface of a sphere having that radius. If more SVs are involved, our possible position would be at any one of the points where all the spheres intersect. An unambiguous solution requires at least three plots, resulting in only one point where all three spheres intersect.

Let's for a moment assume that the receiver clock and the satellite clock are exactly in sync. The receiver times the signal, figures the distance from three satellites, and where the three spheres intersect should be our position.

But, the receiver doesn't know for sure that its clock is perfectly in sync with the SVs. Remember, a millionth of a second translates into a thousand foot error. So, just to be sure, the receiver listens for a fourth satellite.

If the fourth line of position doesn't pass through the other three, the receiver knows something is wrong; it's geometrically impossible for four mutually intersecting spheres to merge at the same point unless the clock is spot on. The receiver assumes, then, that because the fourth sphere doesn't intersect with the others, its internal clock must be out of sync.

The receiver then runs a simple little routine to adjust the clock until all four spheres intersect at the same point. This is known as correcting clock bias, and it's how the receiver resets its clock. That's one of the things that's going on when your receiver has just been turned on and you're waiting for it to initialize (slim, nê?).

#### 4.2 Satellite Acquisition

You go outside and switch on the GPS receiver but nothing happens for a while – why?

If the receiver has no valid almanac stored in memory, it must first find a SV by trial and error and then download an almanac. It does not know which SV is visible, so it works its way through the list of known SVs and their corresponding C/As until it finds one that it can 'lock on' to. (In order to detect and 'de-spread' a signal from a given SV, the receiver must apply the correct C/A for that SV in the signal detection process).

The receiver is now in a position to download the almanac, which will enable it to identify and 'lock on' to the other visible SVs, thus speeding up the process.

Remember the almanac is in subframes 4 and 5, each of which takes 6 seconds to send. Because there are five subframes, though, almanac is coming through only 2/5ths of the time. It takes 25 full data frames to get a full almanac. Each full frame takes 30 seconds, so 25 frames takes 12 1/2 minutes, which is why the receiver appears to do nothing for 12 1/2 minutes.

From the almanac information, the receiver is pre-set with the possible C/A codes and other parameters of the SVs that would be visible to it. The receiver generates these codes internally and starts to look for a match in the weak spread-spectrum signals which are 'hidden' in the background noise.

As soon as a match is detected, the signal is 'de-spread' and the received signal becomes readable. The receiver then 'locks on' to the SV, and navigation can begin after the receiver has 'locked on' to three SVs.

#### 4.3 Multi-Channel Receivers

We have seen that a receiver needs to lock onto four SVs for satisfactory operation, and this is best done when a receiver channel is dedicated to tracking each of the four SVs. These four channels continuously and simultaneously track the four SVs that are in the best geometric positions relative to the receiver.

Most receivers these days have twelve parallel channels. The additional eight channels track all other visible SVs, then add this data to the data from the original four SVs. The unit then over-resolves a solution, creating an accuracy-enhanced reading. The additional channels also ensure reliable, continuous and uninterrupted navigation, even in adverse conditions such as valleys or dense woods, where the receiver may lose one or more of the primary four SVs.

#### 5. GPS Accuracy

GPS is generally said to be available in two forms, PPS and SPS. Depending on whose figures you want to believe, PPS or precision positioning service is accurate to about 29 meters with single-frequency receivers. SPS or standard positioning service is actually capable of the same accuracy except the DOD invokes something called selective availability.

SA is currently on (??) and that degrades the SPS accuracy to about 100 meters. GPS usually delivers on that promise, too. SA is an intentional "dithering" of the clock accuracy and perhaps a contamination of the ephemeris data.

A number of factors go into making that 100-meter potential error. Break these factors down and they might look like this:

- SV clock errors = 2 feet
- Receiver errors = 4 feet
- Ephemeris errors = 2 feet
- Ionospheric errors = 12 feet (receivers with L2 capability

greatly reduce this)

- SA errors = 25 feet

Throw in the statistical average and the ability to repeat a fix reliably over and over and the error gets up around 300 feet or so, with SA on. With SA off, it's around 60 to 200 feet.

#### 6. Maintaining the GPS Satellites

The U.S. Air Force's 2nd Satellite Operations squadron at Falcon AFB in Colorado maintains the GPS system. They have monitoring stations at several points on the globe, from which they keep track of satellite health, maintenance and so forth.

Make no mistake about it, GPS is a *high* maintenance system. The SVs require regular tweaking including data uploads, orbital positioning adjustments and clock maintenance. If the ground segment stopped doing this constant maintenance, it's said that the system would "gracefully degrade" to complete uselessness in about two weeks time.


So, as each satellite whizzes along and completes one earth orbit every 12 hours, the crew from Falcon talk to it every few hours. What do they tell the satellites? Well, there are basic maintenance items, including clock commands, ephemeris and almanac updates, power and attitude messages, new programming instructions.

Occasionally, the SV must undergo what's called a "momentum dump". Each SV has a series of gyroscopic wheels for stabilisation. In space, these wheels tend to accelerate and would do so indefinitely, eventually disintegrating. By dumping the wheel energy periodically, this unpleasant scenario is avoided.

#### 7. References

*Global Positioning System Overview*: Peter H. Dana, The Geographer's Craft Project, Department of Geography, The University of Colorado at Boulder.

*GPS Explained*: Paul Bertorelli

GPS Tutorial: Lowrance Electronics 

**BULLETIN READERS:**

**“AUTO-MATE” YOUR CLUB BULLETINS**

**by Johan Terblanche, ZS1I**

This article was written with the intention to be informative and not to try and convince every bulletin reader to convert to the system described here.

I have used this modified system successfully for the past year or two and have come to the conclusion that the system and software are very handy acquisitions to the hamshack. We all know that PC's are becoming more powerful by the day and with interfaces such as the sound card, a whole new world has opened up for amateur radio.

Many new software packages have been created for use by radio amateurs, but unfortunately the specific recording and transmitting of news bulletins via the sound card and radio interface seems to lag behind.

However all is not lost and after a bit of “muddling” I now use two software packages called: SIMPLEX and SOUNDRECORDER64 to transmit and re-transmit “auto” bulletins via the sound card and radio interface either on HF or 2 Meters.

*IMPORTANT: Various legal reasons exist as to not leaving a bulletin broadcast unattended.*

**SETUP AND OPERATION**

Both these programs can be downloaded from the net free of charge.

SIMPLEX:

<http://perso.club-internet.fr/f1orl/index.html>

SOUNDRECORDER64:

[http://vp.kis.ru/SndRec64-1.0.2\(b\).zip](http://vp.kis.ru/SndRec64-1.0.2(b).zip)

A third program can also be used, but it is a shareware version and requires a different interface.

ECHOSTATION:

<http://www.synergenics.com/sc>

**NOTE:** Read the system and hardware requirements with regard to the above programs before continuing. You will need a “speedster” or “cruiser” computer, but a “tortoise” will not work.

Install SIMPLEX in a separate folder/directory while SOUNDRECORDER64 will directly install to your desktop.

The soundrecorder program is similar to the Windows program except for the fact that it can record for a much longer period depending on your computer's memory capabilities. Soundrecorder64 uses the WAV file format that is very large in size.

You are now ready to make your first bulletin recording. Start the soundrecorder program, select the options menu and choose the quality of the recording you would like to make. Click **record** and continue with your recording.

I use a simple home-brew electret microphone with excellent results.

The program will save your recording the moment you press “stop”.

That's it, your first bulletin is now recorded. Use Windows Explorer and locate the recorded file in a folder called *fmanager*. Copy the dated file you have just recorded to the folder of the SIMPLEX program.

Start the SIMPLEX program and select the “mode” on the menu bar. Set



the mode to simplex and exit .

Now choose "configuration" and select "message #1". Use the browse function and locate your recorded file. Click/select the file and press OK.

Exit this menu and choose "Port". Assign the correct port (com) number for use with the interface.

You are now ready to listen to your recording through the computer's soundcard to which external speakers have been connected.

Click No 1 on the bottom menu of the SIMPLEX program. Your recorded message should load and play from the SIMPLEX program through the external speakers.

If your computer's memory is insufficient, you could try to record the bulletin in sections by using message #1 to #6 but you will have to select each section manually while broadcasting. If you experience any problems, please read the necessary help files of the Simplex program.

Listen to your recording to make sure that no flaws are present in the recording. So far so good. Now to the simple interface between the soundcard and your choice of radio (HF or VHF).

#### **THE INTERFACE**

Various designs exist with regard to soundcard interfaces. Although some might work well with the SIMPLEX program, I would rather advise the construction of the described interface in figure 1. I use this interface for HF and VHF broadcasts. I have not experienced any RF problems but in such an event you could insert two 1:1 audio transformers in the appropriate line. (See ZS2ACP's article in QSX of Oct 2002)

I am not going to describe the construction of the interface as the diagram in figure 1 should be sufficient. Care must be taken in connecting the

interface to the radio's microphone connector or the ACC input. See the owners manual of your radio in this regard.

After constructing of the interface and correctly connecting the interface to your computer's soundcard and radio, we are now ready to make our first live bulletin test broadcast. (see figure 1 for connections)

Start the SIMPLEX program as described supra and select message #1. Your bulletin broadcast should be audible on the selected frequency by monitoring the broadcast on a separate set to ensure that there are no "hiccups".

As mentioned before, I have used this system now for nearly two years without any problems. The audio is excellent with CD quality and your sound card can be set to drive your radio's audio to the appropriate level.

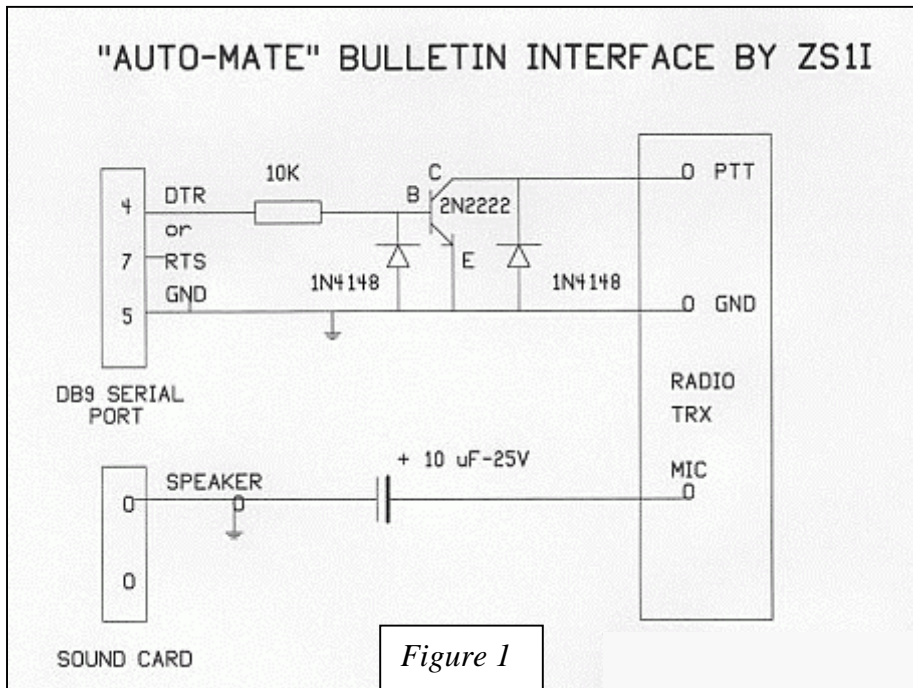
Note: Make sure that you are not spreading too wide or that your audio is not distorted due to a too high soundcard level.

#### **FINALLY**

I have not described the use of the two programs in detail as the best learning tool is to experiment with both programs. Although I have adapted both programs and interface to suit my needs, I am sure that there are better programs or ways to achieve the same results, and I will appreciate any feedback in this regard. My e-mail address is: [zs1i@mweb.co.za](mailto:zs1i@mweb.co.za).

I now have the ability to monitor my own broadcast with both hands free and can correct possible flaws before live on the air broadcasts. These programs have definitely lent a new dimension to bulletin/newsflash broadcasts. Give it a try and I am sure your listeners will be impressed with your super audio and flawless quality bulletins. 📻

## "AUTO-MATE" BULLETIN INTERFACE BY ZS1I

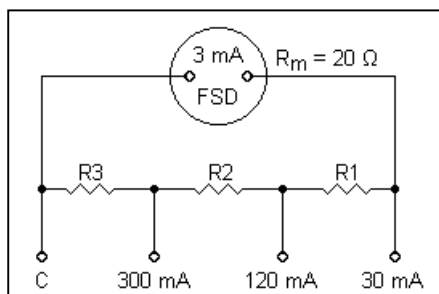


## LAST MONTH'S AMMETER PROBLEM

and a new one!

The values of resistor  $R_1 = 0,3375$  ohm and  $R_2 = 0,0375$  ohm.

Anyone interested in the formulae to calculate these values?



**Here is another one.** This one measures *three* current ranges up to 300 mA

Calculate  $R_1$ ,  $R_2$  and  $R_3$ . 🧐

## RECORDING OF OUR MONDAY EVENING SLOT

Beavan ZS2RL is recording the Monday evening chats and will keep each evening's data for a few weeks.

If you would like a copy of what was said, please give Beavan a CD-R. He will download the required item for you.

# BATTERY MONITOR

by Viv Moore ZS2VM

In the accompanying diagram of a battery monitor, the indicator light is arranged to remain on while the battery level is above the minimum usable point. Below that level, the light is extinguished.

The method of operation is as follows:


The positive point (indicated by the plus sign) is connected to the battery positive, and the ground end to the negative side of the battery. The zener voltage should be selected for a value lower than the required cut-off voltage of the battery.

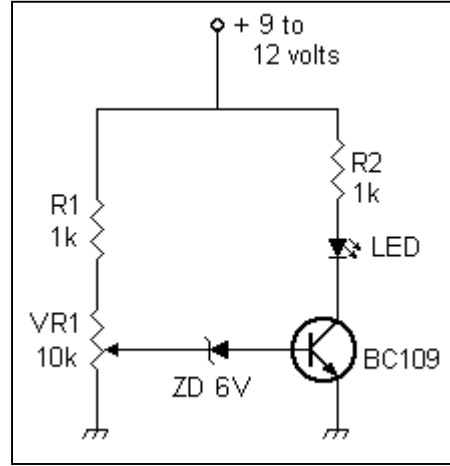
Under test conditions the potentiometer is adjusted until the LED is extinguished, and it is then left at that point.

The voltage selected by the potentiometer flows through the zener and appears at the base of the transistor. This positive voltage will cause the transistor to conduct and light up the LED.

When the battery voltage drops below 10 volts, the LED will be extinguished.

Resistor R1 protects the system from burn-out should the potentiometer be adjusted at too high a positive value.

R2 limits the current flow through the LED and transistor. 



## ARRL "Logbook Of The World" GOES LIVE!

The long-awaited QSL-cardless ARRL awards and contact credit system "Logbook of the World" (LoTW) officially opened for business this week. Within its first five days of operation, the system – which is open to all – had already attracted more than 1000 requests for a digital certificate, the essential pass key to LoTW.


Logbook of the World is a tremendous resource for hams chasing DXCC, VHF/UHF Century Club (VUCC), Worked All States (WAS) and other awards. It is hoped that it will appeal to hams who are not currently active in these awards programs, said ARRL Chief Operating Officer Mark Wilson K1RO.

## RAE Examination

The next Radio Amateur's Examination will be held on Thursday 16 October from 19:00 to 22:00 at various centres around the country.

Every examination centre is required to have at least two invigilators, who must be members of the SARL.

The SARL Council thanks all those who are conducting RAE courses, and who are giving their time to conduct the examinations at each centre.

We are not sure whether any candidates will be writing in the Port Elizabeth area but, if so, we hold thumbs that they will find the exam to be to their liking. 

# Pearstalk



*(Some of these items from SARL bulletins and ZS4BS Dennis Green's HF Newsletter)*

## **SAARDT TO RAISE FUNDS FOR IARU MEMBERSHIP**

The South African Amateur Radio Development Trust has started a fund raising campaign to fund the SARL's membership of the IARU. Some R13 000 will have to be raised.

The Trust has started the ball rolling by making R5 000 available from its current account. The amount to be raised is thus R8 000.

Radio Amateurs are urged to make a donation to the fund. "It is in every radio amateur's interest to ensure that South Africa maintains its international relations and sets an example to Africa. As the largest amateur radio society in Africa and the country with as many radio amateurs as the total for the rest of Africa, we cannot stay out of the mainstream of organised amateur radio", SARL President Graham Hartlett, ZS6GJH, said.

While the trust is targeting Industry to raise funding, it also appeals to all radio amateurs to make a contribution. Please send your donation to SA Amateur Radio Development Trust, P O Box 90438, Garsfontein 0042 or transfer the money directly into the SA Amateur Radio Development Trust account at ABSA, account number 560 142 722 Branch code: 334 126.

All donors will receive a certificate acknowledging their donation. A list of donors will be published on the SARL website.

The Trust would like to transfer the required fees to the IARU before the end of September. In the happy event that

more money is raised than the required amount, the surplus will be kept in trust and paid towards the 2004 subscription.

## **ANDRÉ IS SA CHAMP!**

André ZS2ACP became Champion for handguns up to 50 metres during the All Africa Championships in Bloemfontein recently.

He has been invited to the Springbok trials in January, and hopes to get in on the world championships, which will be held in Bloemfontein next year..

Congratulations and good luck, André!

## **RESULTS OF PEARS MICROWAVE AND DIGITAL CONTEST**

The overall Digital winner is Hal ZS6WB, who claimed 163 957 points and 13 grid squares on the combined bands of 50, 144 and 432 MHz. The runner-up is Nasri ZS1NAZ with 123 776 points.

The other scorers who submitted logs are: ZR6DXB – 57 285; ZS2BWB – 44 976; ZS5LEE – 37 838; ZS4SS – 31 512; ZS6ANZ – 28 912; ZS1AGF – 25 670; ZS6AVP – 10 344; and ZS6HS – 4 349 points.

There was only one entry for the Microwave section – Dave ZS1SG who worked ZS1AYJ on 10 GHz and scored 23 points. They failed with their next attempt over a longer distance of 50 Km when one of the transceivers packed up.

There were no contacts made on 1296 MHz or via moonbounce.

Although it was thought that Ivo ZS6AXT, the promoter of Microwave

activity in South Africa, had not participated in this event, we heard that he had been unable to contact any stations on the various bands for which he was equipped.

He was QRV for the contest on 23, 13, 6 and 3 cm bands operation, but could not find a single station to work. The only attempt for a 23 cm QSO with ZS6HS failed, because Bert's equipment did not work.

This first mid-year contest has drawn some of the very top VHFers in the country and therefore it could be regarded as a reasonable success.

Please note that the next PEARS VHF & UHF contest is planned for the weekend of 23 – 25 January 2004.

### **SARL HF CONTEST**

The 2003 SARL HF Contest was held on Sunday 3 August 2003 and it was quite a busy afternoon on the bands.

The contest started a half hour earlier and ended a half hour later than in previous years.

Forty metres was jam-packed and Gary ZS5NK commented that he had never heard 40 metres so busy. Looking at the various logs it would seem that there were in the vicinity of 97 different stations on the air during the contest.

Taking top honours in the Multi-operator category is the 3DA0DX DXpedition of Cliff ZS6BOX, Ron ZS5ABD and Willie ZS5WI with 210 points.

### **ANTIQUES GET CALLSIGN**

Thanks to the support of the SARL, the Southern African Antique Wireless Association has been allocated the special callsign ZS0AWA.

The SA AWA meets every Saturday morning at 09:00 CAT on 7070kHz with a relay on 14,175 kHz, beamed to the south from Johannesburg.

Membership of the SA AWA is by

association, and there is no membership fee. Amateurs wishing to associate with the SA AWA are requested to order a ZS0AWA call sign badge, gold braid embroidered onto blue cloth, suitable for sewing onto a golf shirt or jacket.

Furthermore, you may wish to order your own call sign in the same format. Please place your order for either the AWA and/or your own call sign with Willie Axford, ZS5WI, P.O. Box 1064, Eshowe, 3815 in cash, together with a SASE for return postage.

The cost for each of the tags is R20. Funds accumulated from this effort will be used to pay for annual licence fees and QSL cards.

### **CERTIFICATES FROM THE MAY RAE HAVE BEEN POSTED**

Certificates for the May 2003 Radio Amateurs' Examination have been posted to all successful candidates recently, and should reach everyone soon. If you have not received your certificate by now, kindly contact the SARL office at 011 673 2393 or email [admin@sarl.org.za](mailto:admin@sarl.org.za).

### **MAY – JUNE RADIO ZS AVAILABLE ON SARL WEBSITE**

The latest edition of Radio ZS (May – June 2003) is available for download on the SARL website. Members may download their copy by visiting [www.sarl.org.za](http://www.sarl.org.za).

We understand that the next issue is going to press soon and will appear in members' letterboxes in due course.

### **COUNCIL NOMINATIONS AND MOTIONS**

The closing date for nominations for council as well as for motions for the 2004 SARL AGM will be 30 November. Send your contributions with motivations and, in the case of nominations, the nominee's approval, to [www.sarl.org.za](http://www.sarl.org.za). 

**Condolences:** Our sympathy goes to Lionel Coombe-Davis ZS2DD. His mother passed away on 17 September at the age of 99 years and 10 months. Also we extend our sympathy to Anthony Marran ZR2AI, whose mother died in Graaff Reinet on 4 October.

Our condolences also go to the family of Lambert le Doux ZS2LL, of Cradock, who passed away on 2 October, and to Neville Roebert ZS2NR, whose wife René left us on 27 September.

**To those celebrating special days (19.10 to 22.11) we say**

**Have a Happy Day...** 

**... on your birthdays**

**October**

- 24 Kathy Gerstle, XYL of ZS2WG
- 25 Jim France ZS2JF
- 26 Stoffel Carr ZS2C
- 27 Ria de Vos, XYL of ZS2ABY
- 29 Pat Pullinger ZS2PJP
- 29 Noel Staples ZS2AAS

**November**

- 5 Andre Botes ZS2ACP
- 6 Anne van der Linden XYL of ZR2VDL
- 6 Viv Moore ZS2VM
- 8 Martin Ras ZR2MR
- 9 Jeanette Mulder, XYL of ZS2AJ
- 11 Nicolas Thomas ZR2NDT
- 12 Ed Langley ZS2PU
- 14 Dot Clarke, XYL of ZS2MF
- 15 Richard Borello ZR2RB
- 15 George Cooke ZS1JD
- 17 Cheryl du Preez, XYL of ZS2ABT
- 18 Martha Terblanche, XYL of ZS1I
- 21 Shaunna Laaks, XYL of ZR2ABU

**... on your anniversaries**

**October**

- 24 Jo ZS2W and Al Akers ZS2U
- 25 Martie and Richard Borello ZR2RB
- 27 Maxie and André Crouse ZR2A



29 Helen and Noel Staples ZS2AAS

**November**

- 1 Martha and Johan Terblanche ZS1I
- 3 Dot and Ron Clarke ZS2MF
- 5 Betty and Isaac Greeff ZS2ZG
- 17 Joan and Barry Jackson ZS2H
- 19 Jeanette and André Mulder ZS2AJ
- 20 Shirley and Stoffel Carr ZS2C
- 20 Mel and Beavan Gwiit ZS2RL

**on your new call sign:**


ZS2PV Paul van der Merwe of Graaff Reinet, who we reported on last issue.



**Other news ...**

**New Guy on the Block:**

Barry Murrell ZR2DX is back in Port Elizabeth from Johannesburg, where he has spent several years. We trust you will be happy in PE, Barry, and will go places with WSJT.

**Been Places:** Wolf Gerstle, ZS2WG, has been in Germany for a few weeks visiting family and is back in town. 

## Your Society's Committee

Chairman, Awards.....	Rory Norton ZS2BL	585-9330	rory@commco.co.za
Vice Chair, .....	Chris Scarr ZS2AAW	368-1344	cvscarr@intekom.co.za
Secretary, repeaters, packet, .....	Chris Scarr ZS2AAW	368-1344	cvscarr@intekom.co.za
Treasurer; Assets Control.....	Clive Fife ZS2RT	367-3203	cfife@absamail.co.za
Social, Refreshments, .....	Bill Hodges ZS2ABZ	581-2580	whodges@absamail.co.za
Special Events .....	Ewalt Bouwer ZS2EHB	933-3482	ewalt.b@freemail.absa.co.za
QSX printing and info.....	Ashley Goosen ZR2AG	372-2052	ashleygoosen@xsinet.co.za
QSX Editor (ex com).....	Garth Laaks ZS2HB	368-1101	glaaks@iafrica.com
QSX distribution (ex com) ....	Trevor Scarr ZS2AE	367-1746	t&j.scarr@intekom.co.za
Internet Website (ex com) .....	Barry Murrell ZR2DX	083 717 9210	zr2dx@mnet.co.za
Technical Classes (ex com) ...	Al Akers ZS2U	360-2983	

## PEARS' VHF/UHF & Other Services

### REPEATERS

Town VHF .....	# 145,050/650	
Town UHF .....	# 431,050/438,650	Knysna .....
Cockscomb .....	145,000/600	Lady's Slipper.....
Colesberg .....	* 431,075/438,675	Noupoort.....
Cradock .....	* 145,050/650	Uitenhage.....
Grahamstown .....	* 145,150/750	

\* These form the PEARS long-range 2-metre repeater system, also linked to which are East London 145,775 MHz, George 145,700, Danabaai 145,600, Stilbaai 145,750, Butterworth 145,725, King Williams Town 145,625 and Umtata (438,725 duplex). It is further extendable to Cape Town via the WCRWG system. # These can also be linked as required.

### OTHER SERVICES

Packet Bulletin Board (ZSØNTP) .....	144,625
Packet Rose Switch ZSØGHT-3,046101 (144,675 in/out) or 046102 (UHF out to BBS).....	144,675
2m Beacon (ZS2VHF CW ID, FSK) (horizontally polarized, 160W ERP) .....	144,415
6m Beacon (ZS2SIX CW ID) (horizontally polarized, 25W ERP) .....	50,005
6m Simplex Link with Lady's Slipper 2m Repeater (vertically polarized) .....	51,400
Wefax Relay (Meteosat).....	145,350

## Sunday Bulletins

PEARS bulletins are transmitted on Sundays immediately after the SARL English transmission, i.e. at about 08:45, on 7098 kHz as well as the 2 metre linked network that provides coverage from East London to George as well as Cradock and environs. PEARS' 7098 or 3640 kHz transceive facilities are also remotely linked as needed. In addition, the SARL's 40m operations on 7082 or 7066 kHz or Hamnet's 7070 kHz can be remotely patched to the 2m network, in receive-only mode or with full transceive capability for interactive events.

Date	Prepare and Read on 2m Repeater Link
12 Oct	ZS2RT
19	ZR2AG
26	ZS2ABZ
2 Nov	ZS2BL
9	ZS2EHB
16	ZS2AAW

DIARY DATES
<b>OCTOBER</b>
16 PEARS general meeting
16 RAE exam
17-18 CQ Hou Koers / 18-19 JOTA
<b>NOVEMBER</b>
6 Wrinkly Rave
7-9 SARL HF Field Day (2nd leg)

\* We like being your Society \*