



# Q S X P E



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

**WEBSITE: [www.qs1.net/zs2pe](http://www.qs1.net/zs2pe)**

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**JULY 2005**

# PEARS' MONTHLY MEETING

The monthly general meeting of the PORT ELIZABETH AMATEUR RADIO SOCIETY will be held on **Thursday, 21 July 2005** at the St Hugh's Church Hall, Newton Park, starting at 20:00 (8 pm).

There will be debriefing after the VW Algoa rally, and if all goes well, Al Akers will invite a number of members to give short talks (ten minutes each) on any ham radio item that they have found useful. These may contain one or two transistors, but some will have none at all. Circuits will be made available in following issues of QSX of items that might be of some use to members.

Bill ZS2ABZ will provide our usual tea, coffee and biscuits.

## Wrinkly Ravers

I will be away during the July Rave so cannot mention how many were there. In any case, hopefully there will be a fair number of participants and all will have enjoyed the company.

The next Wrinkly Rave will take place on 4 August 2005. Barney's, in the shopping complex in Circular Drive, is the place to be.

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## **VOLKSWAGEN RALLY**

This rally takes place before the July general meeting, at which we will no doubt have a satisfactory debriefing and also exchange a few comments about the experiences not only of the drivers/- navigators but also of our own people.

We will no doubt mention some of them in the August issue of QSX.

There are a few changes in the communications aspect, details of which will also be discussed in the August QSX. ☺

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## **NOTE FROM SARL**

The SARL Council makes use of its website, <[www.sarl.org.za](http://www.sarl.org.za)> for publication of notices to all amateurs. There are of course the regular HQ bulletins, but some documents are too long and complicated to be read once and hope that everyone will understand and remember.

Specifically the area of upgrades from ZR to ZS is now relevant because both the SARL and ICASA are ready to process such upgrades, and the first amateurs who applied for upgrades have already received their ZS calls. Because not all members have access to the SARL website, but some do have e-mail, I am sending this information which comes from the SARL

website, to amateurs by e-mail and also on packet.

I have also discovered that many amateurs who do have Internet access, do not necessarily visit the SARL website and are consequently not well informed regarding upgrades from ZR to ZS.

If you have questions, please communicate with me at this address: <[secretary@sarl.org.za](mailto:secretary@sarl.org.za)> or on packet @ZS0STB. Next time you visit the SARL website, kindly check that your personal details are correct on the web, and also the details of your club.

Regards Henry Chamberlain ZS1AAZ, Secretary of the SARL. ☺



The name, by the way, comes from Garth. According to my dictionary, ad-lib means to speak without preparation. Is he trying to tell me something?

The June meeting proved to be well attended and interesting, with a talk and slide show by Rudi ZR2RCG on the combined efforts of the Mountain Club of South Africa and PEARS members to re-activate the Cockscomb repeater.

This was followed by a talk and slide show by Kendall ZR2WAT on the activities of the Mountain Club, with the accent on search and rescue.

The Mountain Club is certainly doing its bit when it comes to emergency services. Thanks very much to both these Mountain Club members for their talks and slide shows.

As mentioned in June QSX, social and special events will be handled by the whole committee. Such events may be organized by any member or group of members of PEARS, committee members or not, but should preferably be done through the committee; that is with the committee's knowledge.

The committee member to contact and who will oversee activities will be as follows:

*Operating – ZS2EHB*  
*Technical – ZS2BL*  
*Social – ZS2ABZ and*  
*DX and Contests – ZS2U.*

Looking forward to plenty of activity.

Talking of activity, it is planned to give several short talks-cum-demonstrations (maximum ten minutes each) on simple constructional projects at the next meeting. Anyone interested to present one of these talks, please contact Rory ZS2BL or me.

73

Al, ZS2U

## Monitoring

The main VHF frequencies to monitor for emergencies are the Lady's Slipper and Town repeaters. Other two metre repeaters may also be monitored. Even National Call (145,500) could be monitored.

The frequency to monitor on six metres is 52,950 MHz but here it is essentially PRC77 and A44 sets, to be used.

As mentioned earlier, a number of amateurs have acquired sets that function in the 4 metre band and it is suggested that 70,200 MHz be used not only for normal monitoring or calling, but also for emergency use.

I, for one, regularly monitor this frequency. Those who have NEARNET sets could have them programmed to include a channel on 70,200 MHz.

Speak to Ken ZS2OC about this.

As stated before, the PRC77 and A44 sets are not compatible with these sets and it is not really a proposition to try to make them compatible.

On the high frequency bands, monitor 7070 kHz and 3695 kHz.

## Social

We wish to warm welcome to Len ZR4L of Aliwal North, who has joined Hamnet/ECARES. Len is very keen and is well set up for emergency communications.

73

**Al Akers, ZS2U**  
**Provincial Director:**  
**Hamnet/ECARES**

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## PIEZO-ELECTRIC CRYSTALS

from Al Akers, ZS2U

Crystals may be quartz, Rochelle, or Tourmaline, being a form of crystalline silica, Hydrated potassium sodium tartrate silicate containing magnesium aluminium boron respectively.


Rochelle has the highest activity and is the easiest to fracture. Quartz has lower activity and is less likely to fracture.

The crystals have three axes – Z or optical axis, Y or mechanical axis and X or electrical axis.

X cut is usually used (face perpendicular to X axis). Y cut crystals tend to vibrate in a variety of modes and have discontinuous frequency-temperature characteristics.

BT cut crystals are cut 48° to one side of X axis, AT cut 35° to other side of X axis to obtain a zero temperature co-efficient. This will be at only one temperature though.

X cut crystals are suitable for frequencies of 40 kHz to 1000 kHz, Y cut 500 kHz to 3000 kHz, AC and AT 500 kHz to 2000 kHz and BC and BT for 2000 kHz to 15000 kHz.

Frequency variation is a few parts in ten million with temperature control. In comparison, a tuning fork varies one part in 8000 per degree centigrade and, with temperature control, one part in 160,000 (usually mild steel). 

# Short History of the **BACAR FLIGHTS**

By Geoff Tucker. ZS2TS, ex ZS6TS

In 1984, I was a partner in a private professional TV studio and being my own boss my ham radio activities were becoming more and more interesting. Dave Woodhall, ZS6BNT, had an idea to launch a balloon carrying amateur radio equipment. A licence was applied for and once it was granted he went ahead and designed and built the equipment.

The first BACAR (BALloon Carrying Amateur Radio) package comprised of a 2 litre Coke bottle cut in two, the electronics and batteries placed inside protected by polyurethane foam, and the two halves joined together with tape. The switch was a small bolt through the case and a fly lead to screw under the nut.

The transmitter sent out a 100 milliwatt Morse callsign signal for ten seconds followed by a continuous tone for fifty seconds so that we could track it. The whole device was to be lifted by three meteorological balloons filled with hydrogen. Helium would have been safer but was very expensive.

Most of the hydrogen used on the Bacar flights was supplied, and delivered to the site, by Mike Rowland, ZS6AFG, who worked for Pilkington Glass in Springs.

To track the first few BACAR flights we used home-made direction finding loop antennas attached to portable or vehicle mounted radios and later Dave built two mobile electronic direction-finding systems from circuits published in an American magazine – exactly like the systems used today to track stolen vehicles. I had one mounted in my station-wagon and he had the other on his.

Our first launch of the Coke bottle under three weather balloons took place early one Saturday morning from the old Metro drive-in cinema grounds at Halfway House, between Johannesburg and Pretoria. We obtained clearance from Jan Smuts airport control as we had to make sure the air lanes were clear and that any aircraft in the area knew to look out for the package and balloons, and just on sunrise we launched.

With me giving a commentary on the Johannesburg ham repeater, which was relayed throughout South Africa by other

hams, the balloons and package lifted slowly into the sky and started drifting toward the north-east.

Ivan Lusic, ZS6ILU, was my navigator, and we tracked it in the Peugeot guessing which way to head using a direction finding loop-antenna held out of the window. The package changed directions a few times as it went through different wind layers and started to come down about two hours later in the Hartebeestpoort Dam area.

Before it started down, reports that the signal had been received came in from as far away as Durban, Pietermaritzburg and Bloemfontein.

We lost the signal after it landed but both Dave and I had a good position on it based mainly on reports from home based hams with beams. We initially believed it had landed inside the atomic research station grounds at Pelindaba. After we had hurriedly obtained permission through Pretoria University to go inside, we drove up a rising driveway to the gate and as we did so I picked up a weak signal coming from the east of us.

We hurriedly changed our plans and after heading in that direction, driving through a quarry and around a hill on a terrible road, we pin-pointed the signal coming from the side of a rock strewn hill where we found the package after walking up to it with a portable radio.

This was an incredibly exciting launch for us and was the forerunner of many, many more. Later on, instead of the Coke bottle, we flew BACAR in a lightweight glass-fibre container made by my son Michael, but because of incredibly high ground-level winds the package only went as far as Modderfontein Dynamite factory before crashing.

After that we moved the launch site over

the hill to the old Grand Central motor racetrack as the take-off site would then be more protected from the prevailing winds.

Later BACAR flights carried quite sophisticated equipment and computer controlled telemetry and we tracked the packages with the digital direction indicator mounted on the dashboard. Later flights flew with aneroid barometer cells moving a linear resistor made by my son Michael and calibrated at the Jan Smuts airport laboratories where Michael was an Aircraft Instrument Technician.

An onboard computer converted all the telemetry information and transmitted it back to us where it could be decoded on a Sharp hand-held computer while we were driving. Information on battery level, height and temperature were most important.

One experiment carried a "Parrot Repeater" but wasn't very successful as it was jammed up by too many operators trying to access it. Then we were permitted to fly a small black and white video camera. The biggest problem was trying to see from the picture on a portable TV set exactly what the camera was looking at.

When it was coming down we did not at first spot the parachute but then we saw our car on the TV screen as BACAR-TV passed over us to land in a field behind a security fence around a coal mine. We lost one flight completely when it headed east and after chasing it through the Eastern Transvaal for over 4 hours, we had to assume that it never came down inside South Africa.

Another flew all the way into Botswana and was recovered by the police and although they were requested to hand it over to the local ham club we did not see it again. After that Dave built in a cord cutter which could be triggered from the ground on another frequency, so that we could release the package on its parachute if it looked to be going too far.

A flight carrying the usual data-only system had ended up on a farm near Middelburg. The owner of the farm saw it come down and put it in the boot of his car before driving to his home in town. We didn't know this and after driving for hours all

around the carefully calculated landing site in the Middelburg, Loskop Dam area, eventually in the late afternoon tracked the very weak signal coming from the boot of his car in his garage in Carolina, 60 kilometres from where the package had originally landed.

Was his face red when we knocked on the front door and asked his wife for our package! "Jannie, there's people here looking for that thing in your boot!", she shouted back into the house!

A flight launched from Lanseria airport, carrying the equipment in one of Michael's glass-fibre packages, came down on the 400 KV power-lines that run along the southern boundary of the Leeukop Prison. The resulting explosion nearly caused the family who were sitting around a pool nearby, to have heart-attacks.

The remains were eventually removed by Eskom staff and returned to us. There wasn't much left of the box but the electronics looked undamaged and actually, to Dave's astonishment, required little work to get it working again. Fibreglass is a good insulator.

One Saturday at a ham convention held at the Sandton Holiday Inn we launched a cheaply assembled demo model, carrying only a tracking transmitter, from the parking lot and eventually gave up the hunt when the package stopped transmitting near the Vaal Dam about 4 hours later.

Some enthusiastic hams even got an aeroplane into the air to hunt for it the next morning, but with no success.

A flight from Grand Central headed due north and had us driving around in circles in Pretoria West and then on to Warmbaths. We drove around for hours tracking a very weak signal in ever decreasing circles in the dense bushveld around the Rooiberg mountains and with the sun setting rapidly in the west, ended up walking for about 2 kilometres with our handheld radios and loop antennas along game trails until we spotted the parachute hanging from a tree.

We discovered that Acacia trees absorb a tremendous amount of an RF signal. We only got a full signal strength reading when we were about 50 metres from the package

which was hooked by thorns at least three metres up in a tree.

We were invited to launch a flight from Kimberley by the Northern Cape radio club. A large group of Johannesburg club enthusiasts went there and we slept over in a caravan and in some tents on a hunting farm owned by De Beers Mines to the east of the town from where we were to launch the flight.

It was mid-winter and freezing. We launched as usual at daybreak and the balloon started drifting toward the south east. I had to go back to town to get petrol and by the time I was ready to chase it, the balloon was far ahead of us.

There are not many reasonable roads you can follow in that area and we were still a long way away when it suddenly came down much sooner than expected. We suspected that it was so cold that the balloons had just cracked as they expanded with altitude!

A ham in Bloemfontein said he had a good bearing on it and after going to his house to plot the direction we headed to a kopje outside Bloemfontein near the water

reservoirs. From here we located a very weak signal coming from what seemed to be inside the military training area.

While we listened and planned what to do next the signal suddenly died. We never got that package back in spite of the written messages inside, and also taped to the outside of the box, describing the experiment in full and giving all our phone numbers – and there was even a reward! I still imagine the troopies looking down at it and then blowing it to bits with their R1 rifles.

Ivan and I were champion trackers – we never lost a package that was still transmitting when it reached the ground, as long as it was still transmitting. The directions, supplied by hams all over the country who were monitoring the signals, kept us very close to the landing point every time.

My partner in the video studio, Dave McIntosh, videoed a number of the flights and I edited them together into a very exciting one hour video programme which was later shown at ham functions all over South Africa and proved very popular. 📺

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## SCIENTISTS DISCOVER NEW ELEMENT!

A major research institution has just announced the discovery of the heaviest element yet known to science. The new element has been named "Governmentium". Governmentium has one neutron, 12 assistant neutrons, 75 deputy neutrons, and 224 assistant deputy neutrons, giving it an atomic mass of 311.

These 311 particles are held together by forces called morons, which are surrounded by vast quantities of lepton-like particles called peons. Since Governmentium has no electrons, it is inert. However, it can be detected as it impedes every reaction with which it comes into contact.

A minute amount of Governmentium causes one reaction to take over four days to complete, when it would normally take less than a second.

Governmentium has a normal half-life of

4 years; it does not decay but instead undergoes a reorganization in which a portion of the assistant neutrons and deputy neutrons exchange places. In fact, Governmentium's mass will actually increase over time since each reorganization will cause more morons to become neutrons, forming isodopes.

This characteristic of moron-promotion leads some scientists to believe that overnmentium is formed whenever morons reach a certain quantity in concentration. This hypothetical quantity is referred to as "Critical Morass."

When catalyzed with money, Governmentium becomes Administratium, an element which radiates just as much energy since it has half as many peons but twice as many morons. 📺

# HIGH VOLTAGE PROBE

from JOHAN TERBLANCHE, ZS11

A high voltage probe is not difficult to construct and calibrate. A HV probe is a voltage divider which scales-down the high voltage to something your meter can comfortably read.

The probe is rated up to about 10kV. The circuit is a simple voltage divider (Fig 1) with additional features because of the high voltages involved.

A reasonable input resistance for the HV probe would be about 10 M $\Omega$ , but this design does not use any special resistor values. Instead it uses any suitable resistors and has a calibration adjustment which need only be set once.

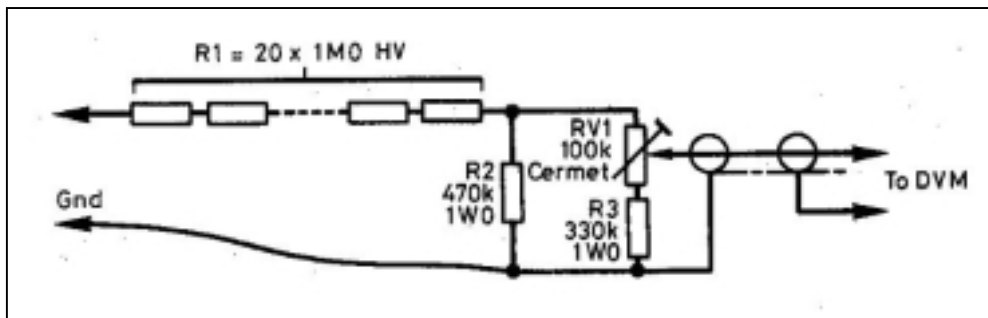
Although some component catalogues do feature 20 M $\Omega$  resistors, there are three reasons why you can't just buy one resistor and solder it in. First, the power dissipation across 20 M $\Omega$  at 10kV is 5W. Second, the allowable voltage drop across any normal resistor is only a few hundred volts, so R1 will have to consist of several lower-value resistors in series.

bottom of the divider must be about 200 K $\Omega$ . An adjustable tap will also be required for the output, to set the division ratio to exactly 100:1 while taking up any component tolerances and compensating for the input resistance of your particular DVM.

For safety reasons I recommend two resistors in parallel at the bottom of the divider chain, to make sure that the output voltage remains low if either resistor should fail open circuit.

Actually three resistors are required: the 470 K $\Omega$  safety resistor R2 is a 1W component, RV 1 is a 100 K $\Omega$  ten turn cermet trimpot and R3 is 330 K $\Omega$  1W. R1 = 20 x 1 M $\Omega$  High Voltage 0.5 W resistors.

Construction of a HV probe requires multiple insulation (Fig 2). The resistors



Third, if these resistors run too close to their maximum rated power dissipation they will change in value and affect the meter reading, so the whole resistor chain must be substantially over-rated.

To make a 100:1 voltage divider with R1 = 20 M $\Omega$ , the resistance at the

comprising R1 are soldered into a chain with very short leads and slipped into a length of plastic sleeving. This in turn is inserted into the thick plastic barrel of a pen, with a suitable probe clip attached to the far end.

Glue the pen barrel into a plastic box as shown (PVC electrical conduit could



also be used) and you can also glue RV1 in place. Provide a long ground lead with a croc-clip, and a two core or screened lead with plugs to suit your DVM.

Attach all leads firmly to the plastic box with clips or cable-ties. The other components can then be soldered on to the available anchor points.

To set the division ratio, organize yourself a DC supply of a little less than 200V, which can often be borrowed. Ideal voltage would be 199.9V.

The voltage can be divided down using suitable resistors. Make a careful note of the reading and then insert the HV probe between the 200V supply and the DVM. Switch the DVM to its 2V range and adjust RV1 to obtain exactly the same digits as before. This sets the division ratio to 100:1, so you can

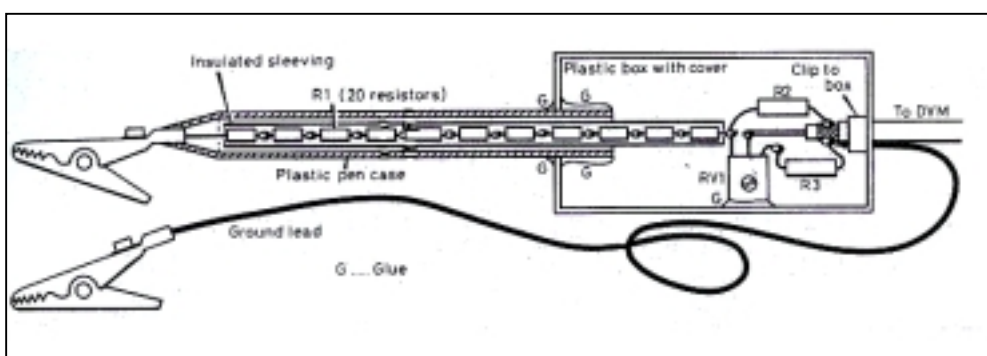
measure up to 2kV on the 20V range and higher voltages on the 200V range.

**DANGER – HIGH VOLTAGES ARE LETHAL!!!**

Before you attach the HV probe and its ground lead, disconnect the HV power supply from the mains and physically short-circuit the measurement point to ground using a screwdriver with an insulated handle. When you switch the power on again, do not touch either the probe or the DVM.

After you make the measurement, disconnect the mains and short the probe clip to ground before you touch it. **Do this every time**, even though you may firmly believe that it is safe to touch – because if ever you are wrong, **you're dead!!!**

**YOU HAVE BEEN WARNED!!**




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## Bushman's Radio Op helps with Deep-Sea Rescue

Last month we published an article under this name but noticed a bit late that the call sign of Graham Griggs was not mentioned. He is, of course, ZS2ABK, and lives at Bushman's River Mouth, just a little down from Port Alfred.

Alistair Campbell and his wife, Davina, are ZS5MU and ZS5GC. Alistair started the net some 27 years ago. Although having had a stroke earlier this year, he is at present now heard quite often as a spectator on the net.

Our own Des Pettit, ZS2ABU, is also on the morning and afternoon nets and gives details of the Port Elizabeth weather. 

**MINUTES OF THE MONTHLY MEETING OF THE PORT ELIZABETH  
AMATEUR RADIO SOCIETY**

held at the St Hughs Church Hall, Newton Park, Port Elizabeth on 23 June 2005

**Welcome**

Al welcomed all, especially ZS2BW from Cradock, Andre ZS2BK, and three mountain club members.

**Present & Apologies**

As noted in the attendance register. In addition apologies were received for ZS2DD, ZR2VDL, ZR2BA, ZR2AG, ZR2CB.

**Minutes of the previous meeting**

Proposed: ZS2BL  
Seconded: ZS2DK

**Matters arising**

None

**Correspondence**

**In:**

- 3 Licences ICASA says we haven't paid – ZU9KDL (Theescombe), ZT2AEK (WEFAX RX), ZU9KCJ (WEFAX TX)
- Faxed article from ZS11 re Youth Day event organising
- Letter (received in May) from Bloemfontein Amateur Radio Club, wishing PEARS well with their AGM
- Two club newsletters (ZS5HAC, ZS6MRK)
- Fax from ICASA re Kareedouw high site inspection 27/6/2005

**Out:**

- Fax to ICASA confirming receipt and acceptance of high site inspection.
- Certificate (PEARS Appreciation Award) to be posted to ZS2AZR

**Finance & Membership**

Clive reported that he had paid the usual monthly costs

of QSX printing and postage, electricity, and 5 months of hall hire. He had also received a donation cheque from the Rally organisation. Finances were reported to be sound.

**Repeaters**

Chris gave a run down on latest developments:

- Cockscomb repeater was working well.
- Kareedouw Mountain was scheduled for an ICASA inspection on the 27<sup>th</sup> June
- Longmore repeater was off the air. It required a new solar regulator to be fitted, due for the following day (24<sup>th</sup>).

**General**

- Licence for Theescombe was handed to Neil, ZR2NT. He enquired about changing the particulars of the licence to reflect his postal address. Chris proposed that the particulars remain as-is, since the process to change them was arduous, and could incur unnecessary admin costs. The club will simply pass the licence on, as had happened with the previous holder.
- Meeting accommodation - Still being investigated.
- Barry ZR2DX asked the committee to contact a list of PE ZR's not heard on HF, just to make sure they realise they now have HF access. Possibly get them involved in the local club again.
- ZR's on HF – Barry ZS2H gave a story about ZR's and their troubles at passing phonetics on HF. If the standard phonetics fail, try others.

• Certificates – Al handed out AGM left-over certificates to ZR2NT, ZS6ACV, ZS2R (per kind favour of ZR2NT)

- Rally indemnity forms – Al made these available for volunteers to complete. The rally briefing meeting has been scheduled for Tuesday the 5<sup>th</sup> July, 20h00, normal meeting venue.
- Chris raised the matter of the club purchasing 10 Tiny track kits at an approximate cost of R560 each. He gave a brief functional description of what was to be achieved with them. No objections were received for the full purchase, even though it would impact on the budget for the current year. He also took private orders for additional kits from ZS2BW, ZR2NT (x2), ZS2BL, ZR2DX, ZS2WG, ZR2SJE, ZS2EHB, ZR2MR, ZS2BK, ZR2RCG.
- Magnetic mount antennas were also offered at R100 each, and these were ordered by ZS2BL and ZR2WAT
- Barry ZR2DX gave a report on the DX cluster and APRS I-Gate facilities that he was about to provide from his QTH, as soon as the ADSL connection was installed.

**Presentations**

Rudi, ZR2RCG gave a detailed pictorial presentation of the Cockscomb repeater trips.

Kendal, ZR2WAT, then gave a presentation summary of the mountain rescue operations and activities.

Meeting closed at 20h35. 

# Pearstalk



(Some of these items are from SARL bulletins, ZS4BS Dennis Green's HF Newsletter, etc.)

## **THE SARL IS NOW THE NATIONAL BODY FOR AMATEUR RADIO**

The Department of Communications has officially appointed the South African Radio League (SARL) as the National Body for Amateur Radio.

While always having been regarded as the national body, amendments to the radio regulations, promulgated earlier this year, required the official appointment of a national body. "While many viewed this as a formality, it required that we had to go through the legal process with the Department of Communications", Graham Hartlett, ZS6GJH, said.

"The SARL is much indebted to Dr Ivy Matsepe-Casaburri and her department for the support given to amateur radio and its future development."

In terms of these new regulations, the SARL will now be able to handle the upgrading of restricted amateur radio licences from ZR to ZS.

Full details of the upgrading process can be found on the SARL web at [www.sarl.org.za](http://www.sarl.org.za).

## **REWIND**

*From the Nokia internal newsletter:*

125 years back, 3 June 1880, Alexander Graham Bell made the first wireless phone call. After installing a sunlight transmitter on a school 700 feet away from a receiver in Bell's laboratory in Washington, his colleague Charles Summer Tainter said: "Mr. Bell, if you hear what I say, come to the window and wave your hat." And so he did.

The technology behind this first call was not radio, but *sunlight*. Bell's "photophone" had a vibrating mirror that could modulate a light beam to carry sound. Variation in

resistance by selenium cells at the receiving end used to regenerate the sound.

Bell and Tainter's invention came 15 years before Guglielmo Marconi's first successful radio transmission. The photophone's reliance on sunlight was one of the factors that prevented it from becoming a wireless success story.

Instead, as Mark Eckenwiler writes in the Post, the invention "(...) laid the groundwork for the fibre-optic technology that today carries the bulk of Internet and telephone network traffic."

(Neal McEwen, K5RW, at the "Telegraph Office".

## **INTERNATIONAL LIGHTHOUSE AND LIGHTSHIP WEEKEND**

Mike, GM4SUC, reports that by Sunday 19 June, there were already 164 stations in 31 countries that have confirmed their participation in the 2005 International Lighthouse and Lightship Weekend on 20 – 21 August.

If you want to join in the fun during the ILLW, please listen for other lighthouse or lightship stations. Last year there were 376 lighthouse and lightship stations active during the ILLW. So come, join them in the fun during the ILLW, and make over 400 lighthouse and ship station contacts.

## **YOUTH FOR AMATEUR RADIO EVENT A GREAT SUCCESS**

Youth Day took on a new meaning for many young people who attended the various Youth for Amateur Radio events arranged by the SARL and associated clubs around South Africa.

"Mark Shuttleworth was a great hit and wooed both young and old", SARL President

Graham Hartlett said. Mark spent an hour on the SARL Youth Day network and inspired young and old with his answers to the many questions posed.

"For many, Amateur Radio was an eye opener", Graham said. The event at Sci-Bona was well attended by learners from various schools as far as the Vaal triangle.

Two schools, KwaSanti in Pinetown and Khanyolwethu in the Strand which are part of the Department of Communication Kopanang project, participated in the event. Officials from the Department of Communications who visited the Sci-Bona Discovery Centre could not believe the enthusiasm for Amateur Radio displayed by the Youth.

"I would like to thank all amateurs and clubs who participated and made Youth for Amateur Radio such a great success", Graham said.

#### **AWA CW Net**

If you are still interested in using CW to communicate, come and join the AWA (Antique Wireless Ass) CW net on Saturday Afternoons at 14:00 on 7020.

Membership is by association and you do not have to be running an antique wireless to join. The aim is to keep CW alive and well on the bands. CW is slow morse, about 12 wpm, sometimes slower. So come and join us.

Look forward to hearing you there.

#### **ATTENDANCE AT THE IARU THREE-YEARLY CONFERENCE IS A MUST**

It is important for South Africa to attend the IARU Region 1 conference to be held in Switzerland in September. This was the decision reached at the previous SARL Council meeting.

At this stage, it is not certain how many delegates the SARL will be sending. "Ideally we should have three delegates to enable the South African Radio League to be represented at each of the committee meetings that do the actual work between the opening and closing plenary", Graham Hartlett, ZS6GJH, said. "It all depends on the amount of funding we can raise.

Right now we have reached our R13 000

target to pay for our annual subscription of the IARU. The fund currently stands at R16 341, so some R3 000 is already available for funding IARU Region meeting attendance. The estimated cost is approximately R12 000 per delegate."

"I have asked the SA Amateur Radio Development Trust to continue their fundraising efforts. I would like to thank all who have so generously contributed to the funds. Your support is much appreciated."

"The IARU Region One meeting will look at a number of important issues that will come up at the World Radio Conference 2007. As the largest society and most active on the African continent we have a duty to take the lead in all efforts to not only protect, but also to grow Amateur Radio", Graham said.

Contributions can be made by electronic transfer to the SA Amateur Radio Development Trust, ABSA Menlyn, account number 560 142 722, Branch code 335 645. Please fax the deposit slip with your details to 012 991 5651 or email details to [saardt@intekom.co.za](mailto:saardt@intekom.co.za).

#### **LISTEN TO AMATEUR RADIO WITHOUT A RADIO!**

As part of an initiative to introduce amateur radio to non-radio amateurs Magalies Radio Amateur Club launched itself into cyberspace and the internet. MRK believes that it is the first for a radio amateur club in the RSA.

As from 5 June 2005 audio from the 175,570 MRK repeater is relayed onto the internet in real time audio streaming.

Real time audio streaming differs from Echolink as Echolink is only available to licensed radio amateurs, whereas real time audio streaming resides in the public domain on internet where anyone with a computer and internet connection can listen to commercial and other radio stations.

In other words, anyone with a computer can log onto [www.zs6mrk.org](http://www.zs6mrk.org). Simply follow the instructions and bingo!, you can listen to what is happening on the MRK repeater in real time audio streaming.

The driving motivation behind the plan is

that there are more computers in households with internet connections than there are short wave or amateur radio equipment.

Through the link on it's website MRK will be able to reach a much larger audience than through the conventional methods. It is aimed at the younger generation and those interested in amateur radio.

In fact the web server handling the audio traffic even has a "funky" name with the title "Pirateradionetwork". Nothing about the website is in fact pirate or unlawful – it is properly registered, all programmes are paid for and governed by international laws.

Nowadays young people tend to go for strange sounding names, and this name could very well be just what the doctor ordered, says the SARL.

*[In my own view, the use of the term 'pirate' in regard to any amateur radio topic is a grave mistake. It has a particular meaning that we as amateurs would want to avoid – Ed]*

ARMI and the Afrikaans and English bulletins are also relayed on this repeater on Sundays. Much larger audiences can now be reached.

In order to successfully operate this facility the SARL and amateurs using the MRK repeater should become far more visible and change our perception in the eyes of the public to that of a technology driven society.

What now becomes important for radio amateurs using the MRK repeater [for that matter, *any* repeater or *any* other amateur band] is that they should carefully select their choice of subjects for discussion and use of language.

Amateurs will also have to brush up on their radio behaviour when using 2 m repeaters. Attention should be paid to correct procedures, pauses etc. Remember, you might have quite an audience out there listening to you without your even being aware of it.

#### **ESTABLISHMENT OF HF EMERGENCY FREQUENCIES RECOMMENDED**

The first Global Amateur Radio Emergency Communications conference,

GAREC 2005, was held in Tampere, Finland, on 13 and 14 June, under the umbrella of the IARU. Forty-five delegates from seventeen countries gave presentations on the amateur radio emergency service of their own countries and described some of the major emergencies in which they have been involved.

The view of the Conference was that progressively more international co-operation would be needed as time goes by and GAREC 2005 agreed a formal recommendation that the next competent conferences of IARU Regions 1, 2 and 3 should consider the establishment of a Centre-of-Activity Frequency for emergency traffic in the 15, 17, 20, 40 and 80 metre bands.

The entire proceedings of the conference, including all the slides and other recommendations, will be posted on the IARU website [www.iaru.org/emergency/summary.html](http://www.iaru.org/emergency/summary.html) in due course and plans are in hand for further GARECs.

#### **PETER I ISLAND 2006**

In a press release dated 9 June, Ralph Fedor, K0IR, and Bob Allphin, K4UEE, announced that "contracts have been signed with two Chilean companies to provide a vessel and helicopter for the DXpedition to Peter I, Antarctica during January and February 2006.

The actual dates of the operation will be released in September 2005, but the general time frame will be between 16 January and the end of February 2006.

Nine stations will be active as 3Y0X on all bands and modes; it is the team's objective to be at Peter I for a minimum of two weeks, with the actual operating time to be determined by weather and set-up time.

The team will be putting up approximately 70% of the DXpedition's expenses, but additional contributions from sponsors are being sought. Detailed instructions on how to contribute to the operation can be found at [www.peterone.com](http://www.peterone.com). Ω

To those celebrating special days (24 July to 20 August) we hope you'll

# Enjoy Your Day



## ... on your birthdays

### **July**

26 Daniel Burger ZS2DSB  
29 Des Pettit ZS2ABU

### **August**

1 Clive Swanepoel  
4 Brenda Whitehead XYL of ZS2R  
4 Diane Luck XYL of ZR2LH  
5 Edna Swanepoel, XYL of Clive  
6 Julia Atteridge XYL of ZS2V  
7 Emmie Venter, XYL of ZS6AZV  
7 Dawn Hislop XYL of ZR2DJH  
8 Johan van Zyl ZS2Z  
15 Serge Smetryns ZR2SJE  
17 Jan van Ree ZS2JW  
18 Al Akers ZS2U  
18 Ellen du Plessis XYL of ZS2BST  
18 Maggie Moore XYL of ZR2IJ  
19 Maureen van Rahden ZS6AVD

## ... on your anniversaries

### **July**

28 Libby and Mike Hanslow ZS1RMS

### **August**

1 Ginny ZS2GIN and Pat Pullinger  
ZS2PJP  
18 Margaret ZS2HM and Jim France  
ZS2JF  
20 Ria and Paul de Vos ZS2ABY



Going Overseas: We hear Peter Liebenberg ZS2PL is planning on going to Australia for five weeks starting early in December. Unfortunately the cost of X-rays, certificates of health and other bits and pieces has already run him up to R500.

He will be taking a rig and a morse key as well as traps for an antenna.

Congrats to Alex Gogos, ZR2T who has received Springbok colours for pistol shooting.

Congrats also go to André Botes ZS2ACP who took six medals in shooting at the recent EP Championships, with a total that entitles him for consideration for the Springbok trials in Bloemfontein, South Africa in September.

Our compliments to both of you.

Out of Hospital: Sally, XYL of Donald Jacobs ZS2BW, was in hospital recently and is now back home. We understand she is coping well and is doing fine.

New Members: We welcome ZS6WDV, Bill van der Walt of Stilfontein into our ranks. We are sure you will find the Club up to expectations, Bill, and that you will stay with us for a long time. ☺

## Your Society's Committee

Chairman .....	Al Akers ZS2U	360-2983	makers@firestone.co.za
Vice Chair, Awards .....	Rory Norton ZS2BL	585-9330	rory@commco.co.za
Secretary .....	Chris Scarr ZS2AAW	368-1344	cvscarr@intekom.co.za
Treasurer; Assets Control .....	Clive Fife ZS2RT	367-3203	cfife@absamail.co.za
Repeaters, packet, .....	Chris Scarr ZS2AAW	368-1344	cvscarr@intekom.co.za
Refreshments .....	Bill Hodges ZS2ABZ	581-2580	whodges@absamail.co.za
Contests .....	Al ZS2U, Barry ZR2DX, [+ Mike Bosch ZS2FM (581-2425)]		
Other Committee Members .....	Ewald Bouwer ZS2EHB (933-3482); Terence van der Linden ZR2VDL (042 233-1859); Glen Cummings ZS2GV (082 411 2743)		
Social, Special Events .....	Committee		
QSX printing and info .....	Ashley Goosen ZR2AG	468-0887	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
Technical Classes (ex com) .....	Paul Galpin ZR6ACV	372-1779	galpinp@absamail.co.za
Internet Website (ex com) .....	Barry Murrell ZR2DX	581-3561	zr2dx@mweb.co.za

## PEARS' VHF/UHF & Other Services

### REPEATERS

Town VHF .....	# 145,050/650	Knysna .....	* 145,075/675
Town UHF .....	# 431,050/438,650	Lady's Slipper .....	* 145,100/700
Cockscomb .....	145,000/600	Noupoort .....	* 431,150/438,750
Colesberg .....	* 431,075/438,675	Uitenhage .....	# 145,075/675
Cradock .....	* 145,050/650		
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, 20W 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

## 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 Butterworth to George and up to the Free State and their 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	DIARY DATES
17 Jul	ZS2U	<u>JULY</u>
24	ZS2AAW	21 PEARS GENERAL MEETING
31	ZS2RT	<u>AUGUST</u>
7 Aug	ZS2ABZ	4 Wrinkly Rave
14	ZS2EHB	7 SARL HF Phone Contest
21	ZR2VDL	20 SARL Technology Open Day
		28 SARL HF CW Contest

\* We like being *your* Society \*