

THIS NEWSLETTER IS PUBLISHED BY THE PORT ELIZABETH AMATEUR RADIO SOCIETY

P.O. BOX 10402 LINTON GRANGE 6015

July 1998

!! CHANGE OF MEETING DATE !!

Please note that the date for the July meeting of the PORT ELIZABETH AMATEUR RADIO SOCIETY has been changed due to a clash with the VW Rally. The July meeting will be held on <u>WEDNESDAY</u>, 15 July 1998 (and not on the usual evening), commencing at 20:00 (8pm), in the Municipal Disaster Management Centre, Westview Drive, Mill Park, Port Elizabeth (Civil Defence Centre).

This is a most important meeting as **final briefing** for the radio operators for the **VW Rally** will be given. Please make a special effort to attend, particularly if you have volunteered your services for rally comms.

If you have *not* yet volunteered but would like to help – even as a helper to a licensed operator – please contact Chris Scarr *now* with your details.

Tea, coffee and edibles will be available during the break.

Technical Evening

The next technical evening will be on Thursday, 23 July 1998, starting at 20:00, in the Clubhouse (Municipal Disaster Management Centre). Des Herselman ZR2DH will hopefully continue his extremely interesting discourse on the ingenious and useful things that he fiddles together in his workshop.

His homebrew frequency counter was demonstrated at the last meeting and we saw how, by setting two switches, it can subtract or add up to three different IF offsets of the user's choice for his transmitter or receiver, thus giving a readout of the actual transmit or receive

frequency without the need for mental calculations. Some members sought help with their own construction problems and the various possible solutions suggested would be of use to other fiddlers also...

Perhaps at the July gathering Des will tell us more about an alternative to his previously proposed *frequency lock loop* system that he hoped could be realized by using his frequency counter unit to control a VFO. His early experiments have so far proved unsuccessful unless the VFO is relatively stable even without external control.

Wrinkly Roavers - Please Note!

The Yacht Club is no longer providing luncheon facilities, so we have had to change the venue for the monthly Wrinkly Rave, starting with the July one. Ken has organized a date for us at the WAYLINS COFFEE SHOP in Humerail, which

charges pensioner rates on Tuesdays.

After a quick whip-around on a bulletin net it was agreed to hold our July get-together there at 12:30pm on Tuesday 21st July, which is the third Tuesday. The restaurant is behind the Engen filling station, which in turn is opposite the Apple Express in Humewood Road. Turn up past Engen at the traffic lights and then right again.

Unless otherwise decided at this meet, the following rave is scheduled for Tuesday, 18th August. But we'll see you first on 21 July, won't we?



A Word

From the Chair

t is with pride and appreciation that I wish all the recent RAE candidates well after all but one of them successfully sat this exam in May. Pride in the fact that ordinary PEARS members, not even necessarily serving on the committee, were the leading lights in getting the candidates through the exam. And appreciation for their time and effort, may you not feel it goes unnoticed! Viv, well done, and thanks.

But the eagerness to get the new amateurs on the air has met with some unfortunate resistance from the SARL HQ. With the VW Rally imminent, Shawn, ZR2SC undertook to get ZR Licences expedited for all those interested, so that they can actively take part in this exercise. However, he was only to be met with the attitude that, unless the candidates are paid up members of the SARL, no favours in the form of priority licence application form processing would be done. Can you believe it? Now, what more effective way will HQ find to chase away new hams?!? One would expect that they would be only too keen to provide an excellent service up front in allocating their licences, and then add a rider that their membership would be expected in return. Let's see what the next few days bring...

Preparations for the rally are running well, and all will be explained at the next general meeting, whose date has been adjusted accordingly. I apologise to those members not too keen on the rally scene for the priority it seems to take at this time of year, and I hope that we can make up this overindulgence in rallying by organising something to your taste later in the year instead. Tips is this regard are always welcome - let's hear some social ideas from you.

73,

Chris, ZS2AAW

HAMNET/ECARES NEWS

General Meeting

The next general meeting will be held on Wednesday, 22nd July at 1930 at the Municipal Disaster Management Centre.

There will be a talk on disaster management by Mr. Gavin Gilmer, who is head of the Municipal Disaster Management Department.

Hamnet News Bulletins

These are transmitted each Sunday at 0910 on 7070 kHz. The bulletins are also transmitted from Gauteng on 52,8 MHz FM, using a horizontal antenna. This could be used for checking openings between Gauteng and the PE area.

Six Metre Project

Equipment for this project has been installed and a transmatch for the vee beam has been built and installed. The antenna for relaying back to town is nearing completion and it is intended to have this project operational by early July.

Incident Scene Procedures

Question eight of the quiz in the May issue

of QSX dealt with the first priority when coming upon an incident (accident) scene, namely *your* safety and that of your passengers and vehicle.

Only about two days after delivering the June contribution of Hamnet/-ECARES News to Garth, in which the answers to the quiz were given, a horrific accident occurred in Gauteng.

A man who came upon the accident parked his vehicle 150 metres beyond this point and walked back to assist. Another vehicle coming along crashed into the accident vehicles, shot into the air and landed on top of the vehicle parked 150 metres away.

This serves to illustrate the importance of that first priority. It occurred to me that it is probably better to park *before*, *well* before, the accident scene, rather than *past* it.

73

Al Akers ZS2U

Provincial Director, Hamnet East Cape/ECARES

VISIT PEARS' INTERNET SITE http://users.iafrica.com/g/gl/glaaks/



MINUTES OF THE MONTHLY GENERAL MEETING OF THE PORT ELIZABETH AMATEUR RADIO SOCIETY, HELD AT THE MUNICIPAL DISASTER MANAGEMENT CENTRE, MILL PARK, PORT ELIZABETH ON FRIDAY, 19 JUNE, 1998

In the absence on other duties of the Chairman, Dick Schönborn ZS2RS took the chair and opened the meeting with a welcome to an unusually small turnout of members.

Present & apologies

17 members, with apologies from ZS2AAW, ZS2VM, ZS2DD, ZR2ABU and ZR2EY.

Minutes of previous meeting

Proposed by Fred ZS2JS, seconded by Bill ZS2ABZ.

Matters arising - Nil

Finance

Clive ZS2RT reported that our finances were in a healthy state. 114 members had so far renewed their subscriptions to PEARS.

Correspondence

Several newsletters from other clubs

General

Repeaters: Dick reported that the Uitenhage repeater had been linked with the Town UHF repeater and a soak test had shown it to be working "FB". Further developments are on the cards.

July Meeting: Since the VW Algoa Rally will be starting on Friday, 17 July (our normal meeting evening) members were informed that the meeting might be brought forward a few days or a week. Please listen to bulletins. [note-it was subsequently decided to hold the July meeting on **Wednesday evening**, **15 July**]

VW Rally: Dick ZS2RS gave a rough outline of the areas to be covered and called for members to offer their services. Details of volunteers from among those present were taken. It was stressed that good antennas were essential, especially if hand-held radios were to be used.

The meeting closed at 20:50 and the tea, coffee and biscuits provided by Bill ZS2ABZ were gleefully partaken of.

FOR SALE * WANTED * SWOP

FOR SALE

- *Yaesu FT707 plus FP707 power supply, FV707 external VFO and FC707 antenna tuner including a dummy load Bryan Haefele ZS2BH, Tel. (041) 35-4100
- *Kenwood TS130S HF rig with CW filter—R1650 o.n.o.; FT290R Mk2 all mode 2M rig with 35W amp—R1500 o.n.o.; Kenwood "R5000" receiver—offers?—Andrew Gray ZS2G (041) 582-2635.
- * Kenwood TS440S HF rig from estate of late OM Ron Herman ZS2R-R3000 Ruth Herman, 53-2923.

The Telegraph in the Old Free State

FROM 1652 AND SO ON BY JOSE BURMAN

Vic Olivier, ZS2SZ, provided this gem. Reading a book entitled "1652 and so on " by Jose Burman, he came across this article called "Burning up the wire", which should raise a smile among readers – even the anti-CW brigade!

t was during the late 1860s that the first stirrings of the industrial revolution penetrated South Africa. The country was just emerging from a devastating economic depression, the power of the Bantu appeared to be broken, and little groups of Whites had spread to the furthest corners of the country.

In order to keep touch with them, something more than the outmoded oxwagon was needed, and the first steam engines were already fussing their way along the tracks of the Cape Colony and Natal. Even more to the point, the telegraph line was extending rapidly over the country.

The Orange Free State, too was looking ahead. The Basuto War was over, friendly links with the Cape had been restored, and President Brand was anxious to avail himself of that modern miracle, the telegraph. But he was meeting considerable consumerresistance, for the burghers of the O.F.S. were mostly solid, respectable, but extremely conservative farmers.

The only way to overcome this difficulty was by education, and the more advanced members of the O.F.S. administration began what proved to be an uphill task. Help was sought from the Cape, which obligingly sent up a telegraphic expert to explain the secrets of telegraphy to the Cape's northern neighbour.

Mass meetings of farmers were called at suitable spots in the O.F.S. and the virtues of telegraphy were extolled by the government representatives. Then the expert from the Cape took over and

explained how telegraphy worked – or rather he explained, as well as possible to an audience completely ignorant on the subject.

He found the farmers an excellent audience, patient and courteous, hanging on to his every word. If they did not understand half of what he said, that was not his fault, and there was no doubt that they were suitably impressed.

There was, nevertheless, a die-hard core of stubborn opposition to progress, as became evident when the audience was invited to air its views. Speakers emerged for and against the introduction of telegraphy.

Then one of them appealed to Oom 'Faan for his views. Oom 'Faan was a venerable patriarch, and a person whose views were respected by a good many people.

Puffing reflectively on his pipe, Oom 'Faan opened up by delivering some shattering broadsides against the shortsightedness of the young people who spent their time recklessly running after every innovation from abroad, whilst neglecting their ancestral heritage.

Oom 'Faan went on to state that not only was the present scheme ungodly [TO PAGE 10]

CB TO MULTIBAND HF TRANSVERTER

Part 3

*VIV MOORE ZS2VM

In previous issues of QSX we explained how the different modules of the transverter are coupled to a standard 27MHz CB radio to enable multiband operation using a CB rig. The original unit was designed for 3 to 5 Watt QRP use on 80, 40, 20, and 15 meters. André and Viv have achieved some 15 to 20 watts with a small linear amplifier that they constructed.

This month we provide the circuit diagram, PC board design and component overlay for the transverter on the next three pages.

The circuit board can also be obtained from Des Herselman ZR2DH at MTS Electronic World, tel. (041) 54-2911.

Viv wraps up the article in this issue, and we must thank him for a considerable amount of time spent on experimenting with the boards and introducing his own modifications, as well as getting many of the drawings shipshape for printing

This article has been based on the experiences of André ZS2ACP.

The original unit started off as a 2 meter to HF transverter, but 2 meter all-mode rigs are rather expensive and, as many of our new members require HF equipment [when they do something about the 12 w.p.m. morse test] and already have SSB CB sets, we thought to go the route of CB to HF transverting.

To change from using 2 meters to a CB set instead as the IF only means that the crystal frequencies have to be altered.

A number of units have been constructed with the transverter built into the CB set. These have been single-band 40 meter sets, and multiband conversions are just not practical.

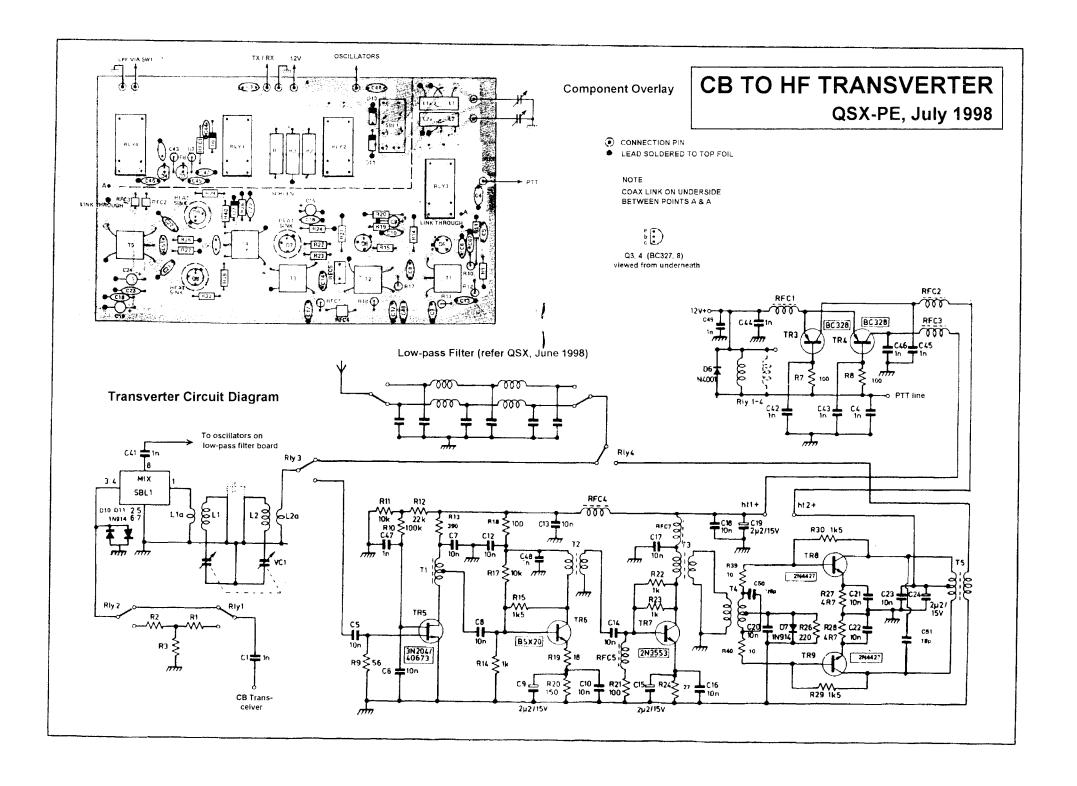
If there is enough interest, QSX will publish a constructional article on the single band unit.

Articles for the two meter transverter appeared in HAM RADIO TODAY of August and December 1983 and, if you could obtain copies, this would be a great help in construction. In any case, one should obtain the assistance of an experienced constructor

The original board could be used 'as is' but, as we could not obtain the relays, we have modified the board to allow the use of the relay DO12-M 211SE. These were obtained from Ellies.

One must be sure of the model as there are similar-looking types of relay with different pin-outs. If one has difficulty in obtaining the correct relay one could, of course, hard-wire a replacement. This would require cutting away one or more tracks on the PC board, unless the relays are mounted on a small separate board and the boards inter-connected suitably.

* Tel. (041) 30-4433



The Telegraph [FROM PAGE 6]

but it was unpractical as well. The latter statement jolted the confidence of the pro-telegraphy group badly – what flaw in the scheme had this hardheaded old farmer discerned?

Developing his theme, Oom 'Faan pointed out that the proposers of the scheme put forward as one of the chief advantages of telegraphy, the fact that they would at all times and in all seasons be able to receive news from the Cape Colony, and to send their own messages.

Pausing dramatically, Oom 'Faan then launched his major argument: "Even if we accept this as true, have they forgotten that even today our

wagons cannot be used for many months of the year, because of the lack of water? This unfortunate telegraph will undoubtedly die of thirst before it has run a month, during our hot summers!"

Oom 'Faan sat down amidst applause, leaving the unfortunate telegraphic expert to try and sort that one out.

[Thanks, Vic How some things have changed...and others not! Ed.]

Left:-The printed circuit board for the CB to HF transverter described on the preceding pages.

DEAL WITH TVI, BCI COMPLAINTS

OM Pierre Knobel, ZS2ABC, suffered a great deal of despair recently following TVI complaints from a neighbour. He writes: "Although a reasonably old ham. I confess that I did not know the proper procedure when I was accused of causing TVI. Perhaps my experience will be of help to other equally uninformed hams."



Firstly, if you are reasonably sure that your station is clean – in my case I have two Yagis on the roof and three TV sets in the QTH, and not one of these shows any sign of TVI – invite the complainant to dial the Sentech Signal Reception Enquiry section (041 33-4888 for the Eastern Cape).

They will pay the complainant a visit and check out his equipment. Sentech requires the complainant's antenna system to deliver a minimum TV signal level (unamplified) of 54 dBmV at the bottom of his antenna coax. If it does not, they regard the installation as inadequate and will not entertain the complaint.

Sentech performs external tests only – they will not open any of the complainant's gear (TV, antenna, amplifier, video recorder etc). If no obvious fault is detected, Sentech will ask SATRA's regional office inspector to follow up with a visit to the ham.

In the Eastern Cape, this is Koos Arnold at telephone no. (041) 585-8321. He will check out all the ham's relevant equipment and draw attention to any shortcomings therein.

If the amateur equipment is within specifications as laid down in the Radio Regulations, the inspector will issue a letter to the ham, confirming that his station is "clean". This implies that the complainant must do whatever is necessary to render his installation

immune to the emissions from the ham station. Often, merely moving the receiving antenna to the other end of the house does the trick.

Pierre says that, if there is a problem with the amateur equipment, Koos will assist in any way possible to rectify the fault. Note, however, that this is not a SATRA function and, if Koos indeed assists, he does so voluntarily.

"Secondly", writes Pierre, "Don't attempt to solve the matter with the complainant by inspecting or modifying their equipment yourself." Many hams have suffered allegations of damaging complainants' equipment or being responsible for subsequent, totally unrelated failures. Moreover, if you are successful, you might be swamped with complaints from all over the vicinity!

Thirdly, leave the testing to the proper authorities. An official certificate of compliance will mean more to the complainant than a verbal reassurance from a friend.

Sentech's Des Amold (not related to SATRA's Koos Arnold) says he usually tries to get the complainant and "defendant" to solve the problem together amicably. He added that he cannot recall, in all his investigations, having ever found the amateur's emissions to be at fault!

☐ RADIO ZS, February 1998 carried a comprehensive feature on dealing with complaints of interference.



SARL APPOINTS NEW VHF MANAGER

Our Mike Bosch ZS2FM has been the SARL's VHF and UHF Manager for several years but has now been given a break. Newly elected SARL Councillor John Fielding ZS5JF has now been appointed VHF Manager.

The SARL Council recognised Mike for his many vears of service the VHF community. Mike will continue to support VHF activity and act as adviser to the VHF Manager. His main area of focus will be on two metre long distance contacts matter in several recent SARL bulletins and Amateur Radio Mirror programmes.

Surprising that the League should initiate the action because, during a live discussion on an SARL inter-active net a few months ago, a clear majority of those participating around the country

told the League, with their reasoning, that they favoured the retention of morse - the President estimated the voting as 75% in favour. Is this spontaneous initiative the result of a tail wagging the dog again?

STOP PRESS!

Congratulations to the following RAE candidates on obtaining their callsigns – in time to help with the VW Rally, thanks to the efforts of Shawn ZR2SC and a very co-operative SATRA official with whom he llaised:

Anne Smithers ZR2AJ Rhys Naude ZR2RN Stuart White ZR2SDW Jim Duck ZR2JIM

SARL PRESIDENT'S NET CHANGE

The President's Net, which used to be held at 12:00 on 40m on Sundays, is now run on Wednesday evenings and on 80m (3690 kHz), starting at 20:00. If you have any problems or questions relating to the League, SATRA, licensing or amateur radio in general, this is your opportunity to speak to the SARL President or, if he cannot be there, a Councillor of the SARL

SARL AGAINST CW?

The Council of the SARL seems to have initiated a South African anti-CW drive to remove the Morse requirement for a ham licence. This is the inference gained from the surprising amount of time that has been devoted to the

MOSLEYS SETTLE IN

We hear that Gail ZS2TM and Chick ZS2LM Mosley have settled down in Southchurch, Southend on Sea, Essex and were surprised to find that our old East London friend ZR2JR John Randall has also taken up residency in the town. John's new callsign is M1CUU. Chick and Gail have yet to apply for their G licences but will hopefully get up and running in the near future.

QRM FROM ATU?

One frequently hears a series of buzzes come up on a frequency, changing pitch as if the transmitter is shifting frequency between bursts. Your worthy Editor suspects that this may emanate from some type of rig with an automatic antenna matcher, which perhaps triggers the transmitter in several bursts. It does not sound as if

there is any kind of data in the bursts. Does anyone have any information on this?

NO SUBS, NO QSX!

Several members who had overlooked the renewal of their subs were dismayed last month when their favourite reading matter failed to arrive in their letter boxes. So dismayed, in fact, that they hied off to the honourable PEARS moneybags gentleman and coughed up their R50.

If anyone complains to you that he/she has not received QSX, ask him/her whether he/she remembered to renew his/her subs.

NEW SARL AWARDS

The SARL has established two awards, to be known as the "Tinus 7066 Junior Technical Lange Excellence Award" and the "Tinus Lange 7066 Technical Excellence Award". They will be bestowed annually on persons who submit a technical project in any of the following categories: design and/or construction of projects such as a pre-amp. SWR bridge, patching unit, automatic ID-er, practical antenna ideas, mast, portable gear, power supplies etc.; any software for use in Amateur Radio.

The submission must include the following: the actual items (if size and photographs allow) or (particularly the case in antennas/masts etc.); a complete writein article form illustrations/pictures readv for publication in Radio ZS.

The recipients will each receive R350 in cash and a framed certificate.

RAE PASSES

There was a 91% pass rate in the most recent RAE, the top scorer, a Durbanite, achieving a score of 96,67%. There were no candidates for

the Class B exam.

The pass rate among PEARS candidates was 94,44% (17 out of 18), the highest score being achieved by Merle Thomas, XYL of Neil ZR2NT. Her aggregate came out at 81,67%, placing her seventh highest in the Republic.

Well done, Merle.

See page 14 for the names of our other successful candidates.

WORLD AMATEUR RADIO DAY

World Amateur Radio Day will this year be celebrated on Saturday, 19 September with the theme "Communicating World-wide for Three Quarters of a Century".

The theme is in honour of the first two-way transoceanic amateur radio contact made on 27 November 1923 between a French station, 8AD and American stations 1XAM and 1MO. This contact was followed by many others and ushered in the shortwave era.

IARU Region One will be broadcasting a special programme tracing the early history of shortwave communications and the contributions radio amateurs have made to the development of radio science and the understanding of high frequency propagation.

The programme will be on the air at the following times and frequencies:

13:00 – 13:55 UTC beamed to Southern Africa, 100 kW on 7205 kHz and

19:00 – 19:55 UTC Southern Africa 100 kW on 3215 kHz

With a communications receiver and a reasonable antenna, good signals will also be picked up in areas falling outside the main antenna beam. Try all the times and frequencies.

The broadcast facilities are sponsored by Sentech.

Condulences— We extend condolences on behalf of the Society to Mike Smuts ZS2XE and Shawn Corder ZR2SC on the passing respectively of their XYL and Grandmother, Mattie, on 24 June; and to Anne Smithers, whose father also passed away last month.

Congratulations...

on your birthdays:

July

- 20 Vic Olivier ZS2SZ
- 22 Beavan Gwilt ZS2RL
- 26 Daniel Burger ZR2B
- 29 Linda Peckham XYL of the late Brian ZS2BP
- 29 Des Pettit ZS2ABU

August

- 2 Sharon Layton ZS2SL
- 6 Julia Atteridge XYL of Bill ZS2V
- 9 Pat Bartlett ZR2DA
- 15 Annamarie Barnard XYL of Attie ZS2Q
- 18 Al Akers ZS2U
- 21 Martie Borello XYL of Richard ZR2RB
- 23 Mike Bentley ZS2IC
- 23 Owen Thomas ZS2AZ

on your anniversaries:

July

None in July section of this QSX period (20 July onwards).

August

- 5 Shirley & Tom Cockbain ZS2TC
- 9 Annamarie & Attie Barnard ZS2Q
- 18 Margaret & Jim France ZR2JRF
- 20 Ria & Paul de Vos ZS2ABY

on passing the RAE: Merle Thomas (XYL of Neil ZR2NT), who achieved an A aggregate, coming 7th highest in SA, while the youngest candidate in the Republic, 11-year-old Kevern Layton

of Uitenhage, achieved a B overall. Special mention must also be made of **Margaret France** (XYL of Jim ZR2JRF), who attacked the RAE at the age of 77 and achieved a B pass! Well done, Merle, Margaret and Kevern!

Other successful candidates are: Natasha Smithies, Sean Venter, Stuart de Lacy White, Jim Duck, Warren Ashburner (all B passes), and Anne Smithers, Clive Hopkins, Shaun Victor, Johan Pretorius (teacher at Newton Park Technical High), Marc Gatley, Daniel van Rensburg, Andrew Fife (son of Clive ZS2RT), Jason Prent and Rhys Naude.

Hearty congratulations to you all. Now who's going to be first to pass the CW test?

Congrats and a *big* thank-you also to the lecturers, and to Viv Moore ZS2VM in particular for the time and effort that he put into the classes.

Only one of the 18 entrants who wrote did not, unfortunately, make the grade, but we hear she intends to give it another go. *Good luck!*



Sick list: Mike Smuts ZS2XE and Rusty ZS1WQ have been in hospital. You are both in our thoughts.

Your Society's Committee

Chairman Repeaters, Packet Vice Chairman: Social, Special Events Secretary Repeaters, Packet Treasurer, Assets Control. Awards: Refreshments, QSX collation QSX Editor Assisting QSX collation/distribution Technical Classes, Social Librarian	Dick Schönborn ZS2RS Jacques van der Heide ZR2JH Clive Fife ZS2RT Bill Hodges ZS2ABZ Garth Laaks ZS2HB Trevor Scarr ZS2AE Shawn Corder ZR2SC	38-1344 38-5070 73-3728 32-3203 51-2580 38-1101 32-1746 360-7369 54-2911 (W)
		5402 (All Hrs)

PEARS' VHF & Other Services

R	E	P	E	Λ	T	E	RS	

	# 145,050/650	Kareedouw	H 145,125/725
Town UHF	# 431,050/438,650	Knysna	* 145,075/675
Cockscomb	145,000/600	Lady's Slipper	* 145,100/700
Cradock	* 145,050/650		# 145,075/675
Grahamstown	* 145,150/750		Н 145.175/775
* Th C DT1 1	3 .	1111 5	

^{*} These form PE's long-range 2-metre repeater system, to which the East London 145,125/725 MHz repeater and the George repeater on 145,100/700 are also linked. # These can also be linked as required. H These are privately owned repeaters and are not included in the PEARS linked repeater system.

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) (horizontally polarized, 160W ERP)	144,410
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 and environs via the linked repeater system described above. PEARS' 7098 or 3640 kHz transceive facilities are also remotely linked as needed. In addition, the SARL's 40m transmissions on 7082 or 7066 kHz, alternatively 7070 kHz, can be remotely patched into the 2m network, either in receive-only mode or for full transceive capability for interactive events.

Date	Prepare and Read on 2m Repeater link
19 Jul	ZS2RS
26	ZR2JH
2 Aug	ZS2RT
9	ZS2ABZ
16	ZR2SC
23	ZS2HB

DIARY DATES

15 PEARS Monthly Meeting

- 21 Wrinkly Rave at Waylins
- 22 Hamnet meeting
- 23 Technical evening

AUGUST

2 SARL HF Phone Contest 18 Wrinkly Ravers luncheon

* We Like Being Your Society!