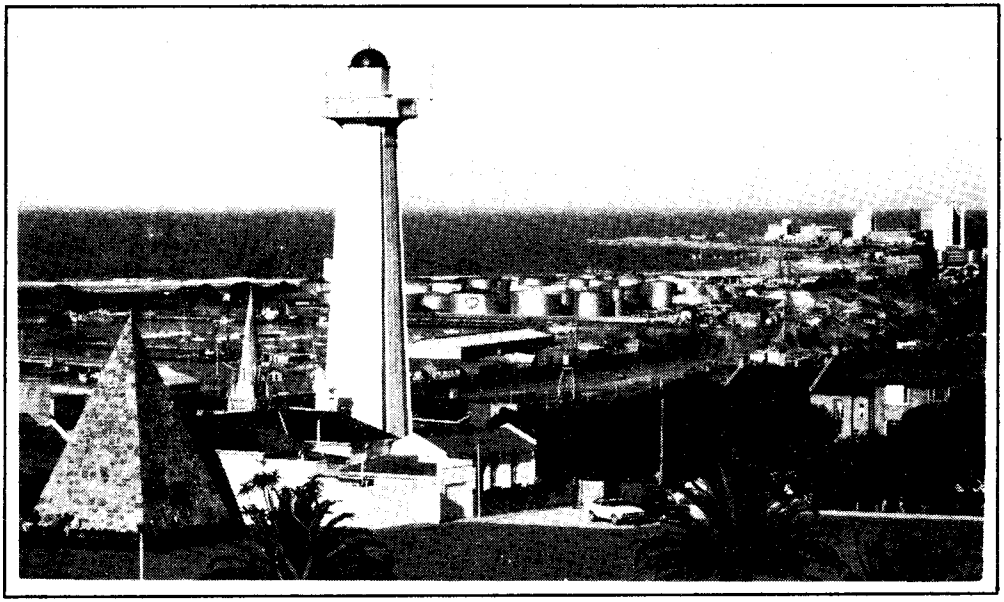
QSX PE



THIS NEWSLETTER IS PUBLISHED BY THE
PORT ELIZABETH AMATEUR RADIO SOCIETY

P.O. BOX 10402
LINTON GRANGE
6015

February 1997

NOTICE of MEETING

The monthly general meeting of the **PORT ELIZABETH AMATEUR RADIO SOCIETY** will be held on **Friday, 21 February 1997,** commencing at 20:00 (8pm) in the Municipal Disaster Management Centre in Westview Drive, Mill Park, Port Elizabeth (Civil Defence Centre).

It is hoped that a speaker from MTN will enlighten us in regard to the cellular telephone system. This talk was actually laid on for last month but postponed at the last minute as it was thought that there would be only a small turnout, the holiday season being not yet over. We were wrong, of course!

Refreshments will be available for a small contribution.

Technical Talk

The monthly technical get-together takes place on Wednesday, 26 February at the clubhouse. Come along and enjoy another interesting evening with a technical flavour.

Come again? – or The Things People Say

Those who attend the technical evenings would never be guilty of some of the bloopers that one hears on the bands from time to time. The following - not from PEARS members, I hasten to add, were heard recently:

"I'm only running 80 watts so I can't be spreading."

"I can't be spreading because my SWR is 1:1."

"I called the gang on 40 metres for over an hour and got no response, yet I could hear you all at well over S9. Then I noticed that the mic gain on my TS430 was turned all the way down."

"It must be your receiver. I have had no other reports that I'm spreading." Which is aggravated by his friend saying:

"No, you are not spreading. I checked and you disappear one kHz up and one kHz down from this frequency."

Sometimes the Internet sounds like a viable alternative! Ω

A Word from the Chair

An interesting Intecnet was held on 19 January to debate whether there is still a need for amateurs to maintain an emergency network.

Unfortunately, during the introduction, a Gauteng Hamnet official, quoting from a Satepsa document, referred to some one-sided reports of unpleasantries dating back many years, Eastern Cape amateurs being specifically targetted. Perhaps all interested parties should read the transcripts of recordings made by Garth ZS2HB. They certainly make interesting reading.

It is regrettable that these remarks were broadcast not only on our VHF and HF *amateur* bands but also on a Sentec short-wave transmitter for public consumption. The unnecessary and totally outdated information would therefore have reached many uninformed listeners, which in the long term could have a very negative impact on amateur radio in general and the Hamnet emergency service in particular.

The post-net call-in was probably the largest ever in this area. More active participation in the debate itself by the many listeners might have conjured up some balanced, constructive suggestions. The emergency services can always do with more members. Perhaps, by hearing the flipside, the Hamnet powers-that-be might realise that there must be a good reason why amateurs are not queueing to join their organisation, particularly in this area.

73,

Dick ZS2RS

E-Mail Address

Hamnet, East Cape now has e-mail facilities. Our e-mail address is: HAMNETEC@HOTMAIL.COM.

Border Radio Club

Last month I made a trip to East London with two of my objectives being to address the club general meeting on the subject of Hamnet and to obtain a first-hand impression of the amateur radio situation there. This club now has a membership of 42, the highest it has been for many years.

The general meeting I attended had a record attendance according to chairman Colin ZS2CR: in my estimation about 60% of its membership. Pretty good going. The general feeling of cameraderie and enthusiasm was indeed gratifying to experience. Thank you BRC for a most enjoyable evening.

After my talk, at tea-time, there was further discussion of Hamnet and one or two associated problems. I hope that the talk and discussion will result in an upsurge of interest in Hamnet.

Modules

In order to belong to Hamnet, a member needs to pass at least four of five modules and has a period of one year from the time of joining in which to do this. The modules appear to be a problem to some. I can understand this as I did not think this was a good idea initially myself. However, after giving the matter some thought and conducting a few tests, I feel it is a good thing. Knowing the modules will enable you to handle emergencies more effectively and could even save you or your family from injury or loss of property.

Applying some aspects of these modules during normal amateur communications would also be beneficial. Just one example is that of speaking slowly and distinctly and keeping the voice level constant. I have heard quite a number of examples of late where a person rattles off his callsign and slurs his speech.

One person I identified, not by him giving his callsign, but because I recognized his voice. I believe that a certain gentleman in the East Cape was recently taxed on his poor pronunciation of his callsign and he promptly replied that he has been a ham for some time and it was the new members who needed to be informed about giving their callsigns clearly.

This serves to illustrate two points. Firstly, correcting people, especially over the air, is not likely to have a high success rate. Secondly, many old-timers think that they are good operators because they have been on the air a long time. This is not necessarily so. Maybe they were good operators some time in the past, but it is so easy to slowly and surely deteriorate.

Through my involvement with organising communications for rallies, it came to my notice that more mistakes and the more serious mistakes were made by the old-timers and not the newcomers to amateur radio.

The only surefire way of improving our operating is for all of us to regularly and objectively evaluate our operating practices. Maybe we can ask an experienced friend for his opinion on our operating practices. It is probably a good idea to record our transmissions and play it back. Would you enjoy having a QSO with that guy on tape? The bottom line then is that we must all regularly evaluate our operating practices to see that we are above reproach.

Module 2 ***Field Station Operation.***

- Know the equipment required to operate a field station, either on HF or VHF.
- Keep a list of this equipment so that you can quickly check that you have everything. An emergency is not the time to work out your requirements. For example:
  - radio gear, with necessary accessories such as microphones, headphones, power leads, spare batteries, means for charging batteries, morse key, etc.:
  - Writing material: paper, pens, clipboard, watch, glasses, message forms, logbook.
  - Food, refreshments, throat lozenges.
  - Clothing, including warm clothing, raincoat.
  - First aid kit, including personal medicines.
  - Toiletries, water, torch.
  - Gas stove, cooking and eating utensils, matches.
  - Tools, including soldering iron, multimeter, insulation tape.
  - Other, such as spade, axe, crowbar.
  - Sleeping facilities if necessary.
- Know how to overcome practical difficulties that may arise.

73

Al Akers ZS2U
Provincial Director,
Hamnet East Cape

Morsum Magnificat

No, it's not a prize feline but the name of a magazine that is devoted to the past, present, and future of morse telegraphy. Written by, and for, morse enthusiasts, it provides proponents of morse with their own journal.

The magazine is published in the UK six times a year and the subscription is £15.50 per annum. Your copy will be sent via airmail.

If you are interested in obtaining a subscription form, contact your friendly QSX editor on [041] 38-1101.

Watts a dB Worth?

CONDENSED FROM AN ARTICLE IN *73 AMATEUR RADIO TODAY* AND WITH THANKS TO *TEENSPANNING*, NEWSLETTER OF THE MAGALIES RADIO-AMATEUR KLUB, PRETORIA.

Thinking of purchasing an HF amplifier? What output do you want: kilowatt, legal limit, or California kilowatt? Perhaps you're happy to operate with only 100 watts, which is the typical output of today's transceivers. So what is the *real* difference in signals at the receiving end, as compared to the output signal at the transmitting end? And what are the dollar costs for these S-meter differences?

First, a basic: Each time the final RF output power is doubled, there is a power increase of 3 dB. A gain of 3 dB on HF is generally considered to be the least discernible change at the receiving station. An increase of 6 dB is one S-unit and can be considered a worthwhile gain. (Note: S-units vary between receivers, though they shouldn't). The dB gain figures in the table below are based upon an initial RF output power of 100 watts.

Looking at that 3 dB rule, you'd have to increase your 1500W legal limit [***remember – this is in the USA, not the RSA!***] to *3200 Watts* to make a difference on the other end. The difference between running your amp at 1500 and at 2000W will not be noticed. It is, however, illegal!

Notice the difference in dollars/dB between an 800W amp ($78/dB) and one that puts out the full US legal limit ($150/dB). If you invest $1100 more to get from 800W to 1600W, the S-meter on the receiving end will go up about *half* of an S-unit. Is it worth it?

You don't need an amplifier to make contacts, including DX and contesting. There are thousands of hams using 100 watt transmitters and wire antennas, all enjoying their share of DX and contests. It is the antenna first, then the power level, that counts, and somewhere between the two is the operator whose skills bring about many more contacts than brute force alone.

Seldom do local contacts require the use of an amplifier. After all, we are supposed to use only the power necessary to maintain communications. Unnecessary amplifier use serves to clog up the bands with QRM. Some bands, such as 15, 12, and 10 metres, do not play the amplifier game well. Propagation-wise, these bands are either open or they are closed. No amount of power will routinely support communications at a level any greater than 100W will do, although an amplifier *can* make the difference between getting through and getting that QSL.

***

Makes yer fink QRP, don't it? – Ed. Ω

Amplifier Gain	Power Out	New Cost	$/dB
6 dB	400W	$150 (used)	$25
9 dB	800W	$700	$78
10 dB	1000W	$1000	$100
12 dB	1600W	$1800	$150

VARIABLE FREQUENCY OSCILLATORS

VIV MOORE ZS2VM

Frequency stability is the prime consideration when constructing VFOs, and there are two forms of drift to consider:

1. Short term drift. 2. Long term drift.

The first occurs during the initial two or three minutes after voltage is applied. Long term drift may continue for many minutes or even hours.

Short term drift is caused by the heating of the transistor junction and other components by RF currents that flow through them. Long term drift may be caused by an extension of short term drift compounded by changes in temperature within the VFO container.

Abrupt frequency changes can be caused by devices such as trimmer capacitors changing value due to vibration. Changes in operating voltage will also cause frequency change.

Minimising Drift

All LC types of VFOs exhibit some drift. Normally, in a well-designed VFO, this drift practically ceases after 30 minutes of operation. Listed here are some drift-preventive measures that could help:

(1) Use a regulated low operating voltage for the oscillator. Output power can be recovered by adding an amplifier after the oscillator. Use a zener diode or regulator for a voltage between 5 and 8 volts.

(2) Use the lightest coupling between the transistor and the tuned circuit that will sustain oscillation. Minimise the coupling from the oscillator to the first buffer or load by again using a small-value capacitor.

(3) Use temperature-stable capacitors in the critical parts of the oscillator circuit. NPO (zero temperature coefficient) ceramic capacitors are good. Polystyrene capacitors are also good. Silver micas are not the best as they exhibit positive or negative drift traits with changes in temperature.

(4) To reduce wide-band noise output, use a high Q tuned circuit.

(5) Install a small-signal silicon diode between the FET oscillator gate and ground. The diode operates as a bias stabilizer which reduces potential drift and harmonic output. This technique is not applicable to bipolar-transistor oscillators.

(6) All trimmer capacitors should be small air variables or NPO ceramic units.

(7) Air variables used for the main-tuning control in a VFO need to be the double-bearing type (bearing at each end of the rotor). Aluminum plates expand and contract with changes in temperature. Plated brass vanes are best. The main tuning capacitor should turn easily with minimum torque.

(8) Don't skimp on the number of

buffer stages after the oscillator. The greater the number (even up to three) the better the isolation from varying loads that cause frequency changes.

(9) Enclose your VFO in its own shielded compartment and decouple the dc leads that enter the box. This prevents stray RF energy from entering the VFO circuit and causing frequency shifts. Best results will be had if the VFO module is isolated from the main part of the equipment.

(10) Do not use double-sided PC boards for VFOs. The PC conductors form capacitors with the ground-plane of the board, and the board insulating material serves as the dielectric. Capacitors thus formed are very unstable with changes in temperature. Also, stress on the PC board changes these unwanted capacitances. Use single-sided, glass-epoxy board material for VFOs.

(11) Avoid using long PC-board traces (conductors) in critical parts of the VFO circuit, especially around the tuned circuit. Long conductors -- especially very narrow ones -- introduce stray inductance that become part of the tuned circuit. This not only lowers the tuned-circuit Q, but leads to frequency instability if the PC board expands and contracts from heat. Abrupt frequency changes may result if the PC board is stressed.

(12) Use at least two coats of Polystyrene Dope on the tuned circuit coil after it has been wound in final form. This keeps the coil turns in a fixed position, minimising frequency shifts. The protective coating also keeps moisture and dirt from affecting the coil.

(13) If practical, avoid the use of any magnetic core inductor in the VFO tuned circuit. Rigid air-wound coils will yield the best stability traits. Powdered-iron and ferrite cores change permeability with temperature changes causing drift. If you must use a core (toroid or coil slug), try no. 6 (yellow code) powdered iron. It is relatively stable with regard to heating. When using slug-tuned coils try to have as little of the slug within the coil winding as possible. Also, the core should enter the high-impedance end of the inductor.

(14) Whenever practical, do not remove the operating voltage from your VFO, even during standby periods. This will eliminate the short-term drift that occurs when the oscillator is turned on.

Common VFO Circuits

Figure 1 on the next page shows various popular LC-oscillator circuits, along with methods for tuning them. It should be stressed that mechanical tuning (with air variable capacitors) is superior to VVC (voltage variable capacitance) diode tuning. These VVC or varactor diodes contribute frequency instability because additional semiconductor junctions are introduced to the circuit, and the junction capacitance changes with temperature. This is by no means an indictment of VVC diode tuning. Certainly, VVC diodes have their place in amateur design, and are far less expensive and more compact than most quality air variables.

Circuits A and C use a tapped coil (L1) to provide feedback. The tap is .25 of the total L1 turns above the grounded end of L1. Mechanical tuning (C1) is used for frequency control. Gate bias is stabilized by means of the 1N914. In all examples, C2, C3, C4, C5, C6 and C7 are polystyrene or NPO. VVC tuning is used

TO PAGE 10 >

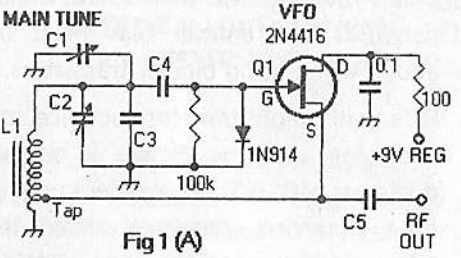


Fig 1 (A)

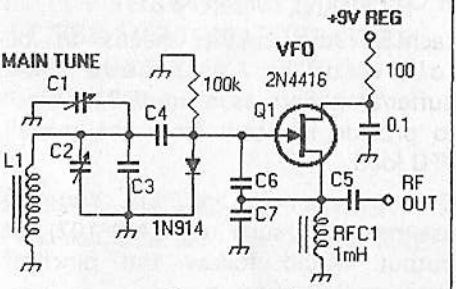


Fig 1 (B)

$$C_T = \left[\frac{1}{\frac{1}{C4}+\frac{1}{C6}+\frac{1}{C7}}\right] + \left[C1+C2+C3\right]$$

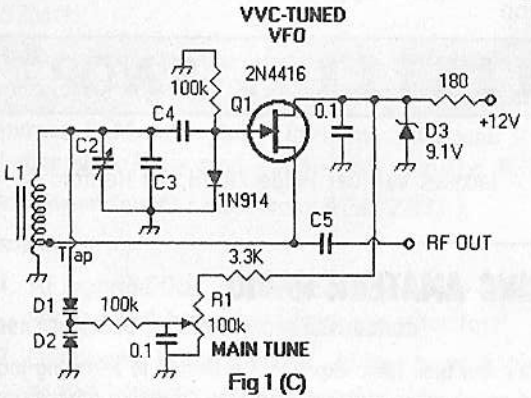


Fig 1 (C)

SUGGESTED VALUES

XC1 = 1200 Ohms
XC2 = 3500 Ohms
XC3, XC4 = 880 Ohms
XC5 = 880 Ohms
XC6, XC7 = 90 Ohms
XL1 = 50 Ohms

C2+C3 = 1.5pF per meter wavelength

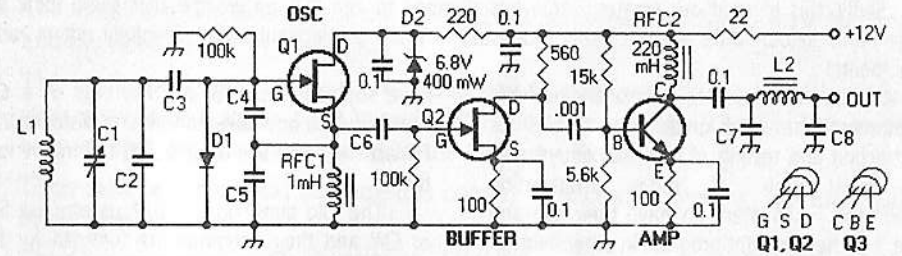


Fig 2 Basic circuit for a VFO with a buffer and an amplifier. C2–C6 are temperature-stable NPO or polystyrene capacitors. C1 is the main tuning control. Q1 and Q2 are MPF102 JFETs and Q3 is a 2N2222A.

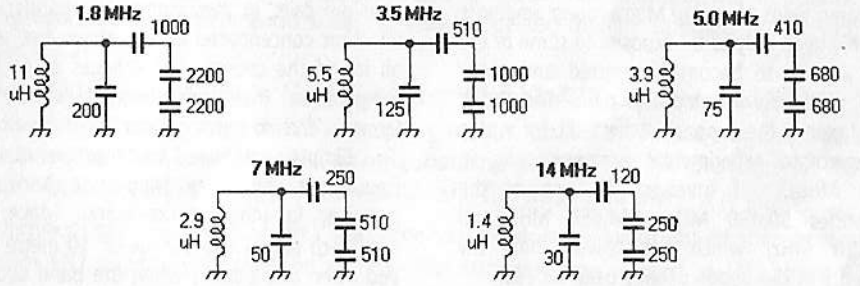


Fig 3 VFO L and C constants for various operating frequencies

at C to change frequency.

Each of the circuits needs to be followed by at least two buffer/amplifiers, as in Figure 2, in order to provide isolation from the overall VFO load.

Q1 in the examples are JFETs. You may use most FETs, such as the MPF102, but output would follow the pinchoff characteristic of the type.

These circuits can be built around bipolar transistors as well. Forward-bias networks and emitter bias must be added when using bipolar transistors.

FETs with high transconductance are best for use in VFOs. Certainly dual-gate MOSFETs are excellent devices for VFO service. Among them are the RCA 40673, 3N211 and 3N212 transistors. Ω

FOR $ALE ★ WANTED ★ SWOP

WANTED

★ **4 X 1 Megabyte, 32-pin SIMMS** – Jacques van der Heide ZR2JH, 20 Hertford Str, Sherwood PE or ☎ 73-3728

REDISCOVERING AMATEUR RADIO

CONDENSED FROM RADIO ZS, DECEMBER 1996

There are many new radio amateurs on the air, but their radio experience is limited to accessing local repeaters. The longest distance ever achieved occurs when a repeater is linked up with a more distant one. Sadly, this is what our amateur radio has slumped to and it is no wonder that some think the newer hams in our ranks are not really interested in radio or electronics and definitely not in radio experiments!

Amateur radio used to be challenging, very experimental, provided great opportunities for construction and testing of new equipment plus the investigation of radio propagation phenomena. Repeaters do have their use and place, but they brought progress in other fields of amateur radio almost to a complete halt.

Not everyone is technically minded, but there is no need to sacrifice all the very interesting fields of radio. Many young amateurs probably need only to be exposed to some of the other aspects to become interested and enjoy them. With this in mind, our own Mike Bosch ZS2FM gained the support of the SARL for a plan to resuscitate experimental amateur radio in South Africa. It involves the use of the frequencies 50,450 MHz, 144,450 MHz and 433,450 MHz, which are lower than the segments of the bands usually used for FM.

The rationale is that many hams who do not have sophisticated SSB and CW rigs or a CW capability can now take part in long-distance VHF FM activities and use these bands before we lose them.

The "big guns" on VHF/UHF usually use SSB or CW and their antennae are trimmed for the lower segments, so they do not perform well in the upper, FM parts of the bands. These chaps are consequently more likely to be heard, and hear our calls, in *their* stomping grounds. With an effort concentrated on the above frequencies all round the country, the chances of detecting temperature inversions, meteor scatter and Sporadic-E is so much greater.

Simple antennae are feasible at these frequencies, but they should be horizontally polarized for long-distance work. Make many calls each time – like the "dead" 10 metre band, you often get a fright when the band suddenly comes alive. Ω

MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH AMATEUR RADIO SOCIETY, HELD AT THE MUNICIPAL DISASTER MANAGEMENT CENTRE, MILL PARK, PORT ELIZABETH ON FRIDAY, 17 JANUARY 1997

Present & Apologies: as per register.

Welcome: Chairman Dick ZS2RS welcomed all present, especially Ron ZS1RON, Phil ZS2PP, and Neil and Nico Thomas (father and son, candidates for the next RAE classes).

Minutes of the Previous Meeting: Adopted – Proposed Fred ZS2JS, seconded Neil ZS2MG.

Matters Arising: The repeater accommodation at Governor's Kop still needs to be worked on. This will be discussed at the February Meeting.

Finance & Membership: Investment account: R 15 985; Savings account: R4 554. Membership: Fully paid - 138, Half paid (i.e. R10 only) - 20, Unpaid - 58.

Correspondence: Letter from Allan ZS2AJ.

General:

1. Al reported that, of the 8 candidates who wrote the last RAE, four had passed and nothing had been heard from the other four.
2. QSO party 18/19 January: Al had been at the last meeting of the EL Club, where he had promoted the QSO party.
3. The Chairman reminded all of the INTECNET to be held on Sunday 19 January, and the need to call in afterwards.
4. The guest speaker (MTN) had been cancelled (metaphorically speaking) because such good attendance had not been expected at this meeting. There will hopefully be a speaker on cellular networks at the February meeting.
5. There will be a technical meeting this coming Wednesday evening, but there will be no guest speaker.
6. The Chairman praised Garth ZS2HB, the editor of QSX, for the excellence of the publication.
7. Raphy ZS2SP suggested that we published a list of the names of our members. Agreed that this was a good idea. It was suggested that an updated list be kept on the BBS.
8. Ron ZS1RON said that in Cape Town considerable RFI problems had been experienced with 'prepayment' electricity meters (made by Plessey in this instance) where these had been installed in neighbouring properties. No problems in PE so far. Beavan ZS2RL said that he would take the matter further.
9. Members complained that they had received no acknowledgment of membership from HQ after paying their subs. (PS– the secretary has written to HQ about this).

The meeting closed and refreshments were had, followed by general ragchewing. Ω

PEARS AGM

The first AGM of the Society will be held some time in April. Details will be furnished in next month's issue of QSX-PE but, in the meantime, please give some thought to who you would like to see serving your interests on the committee.

In his bulletin recently, Trevor ZS2AE rightly said that we need an injection of new blood so that the committee keeps abreast of the needs and desires of our newer members. Of course, continuity is also essential and hopefully several, if not all, current committee members will make themselves available for re-election.

January QSX late

Last month's QSX reached members somewhat later than usual. Our Printers only staggered back from their Christmas excesses on the Monday preceding our meeting. However, they were kind enough to rush our print job and, with Trevor ZS2AE firing on all cylinders, stapler in one hand and labels all over the other, most members received their favourite reading material and notice of meeting in time.

We even had OM Phil ZS2PP attending all the way from Port Alfred, which suggests that he *can* remember about the meeting if he's not reminded too far in advance. There's a name for that problem but I've forgotten what it's called.

On page 14 of that issue, too, the capital V's went missing in the reference to Peggy & Viv Moore ZS2VM, not because it's a family magazine but because the proofreader (me) didn't read the final copy (that's what word processors are all about). The fault is a strange phenomenon which I thought had to do with the HP inkjet printer, but it seems that the word processor also doesn't like the new Epson inkjet. It simply decides to drop every one of a particular letter in one or two lines of print. A reprint without making any changes comes out OK. This has not happened with the dot matrix printer. Any suggestions what the problem might be? The printers all use different drivers, of course.

Garden Route Club

The Garden Route Radio Club, under the callsign ZS1GRC, transmits a bulletin at 19:00 (7pm) every Tuesday *except the third one in the month* on the George repeater (145.100/700 MHz). Since it forms part of the linked system, everyone in range can enjoy listening to the goings on in that lovely neck of the woods, provided nobody isolates the repeater. It was good to hear some rare callsigns in the post-bulletin net a week or so ago.

The third Tuesday of the month is the GRRC's general meeting night.

Who's our 'oldest' member?

In his bulletin recently, Viv ZS2VM asked who the longest-standing member of the PE Branch and its successor, PEARS, might be. It's an interesting question, and Al, ZS2U has suggested that it could be one of the following OMs:

- Van (Schalk) van der Merwe ZS2Y of PE
- Dudley Forsyth ZS2AW of Grahamstown
- Steve (Arthur) Stephenson ZS2GU of PE
- Jim van Loggerenberg ZS2LR of Uitenhage
- Van (Albrecht) van der Merwe ZS2JC of Humansdorp.

We'd like to hear from these okes just when they joined the PE Branch. Al himself joined in February 1948, but he's probably just a chicken compared to the *real* Methuselah.

At the last meeting, OM Phil ZS2PP claimed to be the longest standing member and he stood up to prove it – he towered above everybody else in the room. We had to explain to him carefully what we were talking about.

Now, who's the *shortest* member? ***Sit down, Lynne!***

Dump that *junk!*

Do you have some junk lying around that you would like to put to some use, but can't think of any? Here is a surefire solution, according to Al ZS2U – *throw it away!* There's a 99% chance that, within two weeks, you'll find a need for it.

If not, you're most likely better off without it anyway – but, just to be safe, remember *where* you threw it away....

[I use a similar technique to determine what's weeds and what's the good stuff in my garden. I dig it all up and chuck it away. If they come up again, I *know* they were weeds – Ed.]

Baycom kits available

Des Herselman, ZR2DH, of MTS Electronic World fame, has a number of Baycom kits available at R80 a time, so hasten down to 381 Main Street (next to PE Leather) *now* and pick up *your* kit while stocks last. Don't delay! Do it today! [Sounds like a blooming Pick 'n Pay commercial, don't it?] (These were originally ordered by members who have failed to pick them up. If you are one of them and still want your modem, you'd better get down there *fast!*)

PEARS membership figures

It was sad to note that several members have been lost to us since the shake-up arising from the change in the SARL Constitution. Because of the high overall cost of belonging to both the SARL *and* a club, several former members have, perhaps, opted for the SARL so that they can continue to send and receive QSL cards.

We have also lost some erstwhile *social* members from other areas, who can now belong to their nearest club at a much lower price than SARL membership would have cost them. Whatever the reason, we are sorry to have lost any of our members and hope that they will rejoin us soon.

E-mail or Packet Radio?

No, this is not another sally in the ongoing argument about the merits of Internet vs Ham Radio. It's just that SARL HQ's electronic newsletters are (according to their own introductory remarks) circulated via e-mail or fax. No mention is made of Packet Radio – ham radio's own personal electronic mail system.

To *paraphrase Beavan ZS2RL: 'Surely, if we're serious about promoting the use of our bands, or just plain proud of our own abilities at communicating, packet radio should be the first mode that comes to any radio ham's mind for disseminating ham radio information?'

To be fair, however, it must be mentioned that the first two electronic newsletters have, in fact, also been put onto the packet radio network. It is not clear whether this has been done at the behest of the SARL or as a personal favour by a thinking member.

*Paraphrasing is when you can't print exactly what the guy actually said for some reason. You *knew* that? But you don't know what Beavan *really* said!

News from Members

Chris White wrote to tell us about a trip he and Lydia took to Namibia. Space precludes publication this month but hopefully next month we'll give some extracts. Thanks, Chris. It's good to hear from our remote members.

New QTH for University Repeater

As reported in Hamnet News last month, the University repeater, which is not a PEARS facility but privately owned, has been moved to a site overlooking Theescombe. It has been renamed accordingly – it is now known as the Theescombe repeater. Ω

Sympathy– Our profound sympathy goes out to Elizabeth and André Oliphant ZR2BC on the tragic loss of their daughter, Rita, recently. Our thoughts are with you and the family.

Congratulations...

on your birthdays:

February

25 Ralph Hall ZS2IV
26 Dick van der Berg ZS2VV
26 Waldie Bartie ZS2WM
29 Wolf Gerstle ZS2WG

March

14 Ali Mathieson XYL of ZS2EN
15 Susanna Bosch XYL of Mike ZS2FM
16 Anne Butcher XYL of ZR2GIB
20 André de Ridder
21 Andrew Gray ZS2G
22 Peggy Moore XYL of Viv ZS2VM (hope the V's came out this time!)

on your anniversaries:

February

24 Doris & Arthur Edwards ZS2DJ
25 Karen & Glenn Weiss
29 Ria & Garth Laaks ZS2HB

March

2 Belinda & Des Herselman ZR2CH/ZR2DH
3 Anne & Graham Butcher ZR2GIB
3 Merle & Louis Jordaan ZR2J
18 Keryn & Jonathan Parish
21 Maureen & Neil Fulton ZS2MG

on passing the RAE: Shawn Corder, Johannes Pieterse, Michael MacMillan, Grant Kruger and Alan Bent.

on your new callsigns: Vaughan McIntyre ZR2VG and son Richard ZR2RK, Shawn Corder ZR2SC (grandson of Mike Smuts ZS2XE) and Johannes Pieterse ZR2JLP. Hope to see you mentioned under the next sub-heading soon! Also Ruth Boatright ex ZS5QK has finally received her new callsign, ZS2QK after much hassling with the Department.

on passing your CW test Shawn Hobson ZR2SCH, and Dave Grünewald ZR2DCG, who are now sporting the full callsigns ZS2SCH and ZS2DCG respectively; and Alan Bent, a former ZS who's starting it all over again after letting his licence lapse years ago.

on your marriages Odette Carr, daughter of Shirley and Stoffel ZS2C, on 8 February, and Vanessa Marshall ZR2VM and Chris Scarr ZS2AAW on 15 February. May both couples have many happy years together. Chris being the repeater expert that he is, there will naturally be many little Scarrs in due course.

to new grannies Jane and Clive Fife ZS2RT, who hurried off to George to give the little lady their stamp of approval, and Lydia and Chris White ZS4ABS (also a little lass).

Indisposed: Shirley Winter, XYL of Gus ZS2MC was in for surgery. Hope all is now fine, Shirley. André ZS2BK dislocated a shoulder during a paragliding incident. André, you're *not supposed* to flap your arms when paragliding! Didn't you use a *canopy?*

Moved: If you've been wondering whatever happened to Dick Creighton ZS2A, he and his good lady have moved to a home in Tarkastad. Unfortunately, high power line hash puts hamming virtually out of the question for him. Ω

Your Society's Committee

Chairman; Special Events		Dick Schönborn ZS2RS	38-5070
Vice Chairman, Repeaters, Packet		Chris Scarr ZS2AAW	38-1344
Secretary		Beavan Gwilt ZS2RL	30-6968
Treasurer; Assets Control		Clive Fife ZS2RT	32-3203
assisting with Assets Control		Lynne Crothall ZS2MM	35-4671
Social, Awards		Viv Moore ZS2VM	30-4433
assisting with refreshments at meetings		Bill Hodges ZS2ABZ	51-2580
QSX Manager		Trevor Scarr ZS2AE	32-1746
assisting as QSX Editor/layout		Garth Laaks ZS2HB	38-1101
Technical Classes		Al Akers ZS2U	30-2983

PEARS' VHF & Other Services

REPEATERS

Town VHF	145,050/650	Kareedouw	† 145,125/725
Town UHF	431,050/438,650	Knysna	*145,050/650
Cockscomb	145,000/600	Lady's Slipper	*145,100/700
Cradock	145,050/650	Uitenhage	145,075/675
Grahamstown	*145,150/750	Theescombe	† 145,175/775

* The East London 145,125/725 MHz repeater and the George repeater on 145,100/700 are linked to PE's long-range 2m repeater system.

† These are privately owned repeaters, not included in the PEARS linked repeater system.

OTHER SERVICES

Packet Bulletin Board (ZSØNTP)	144,625
Packet Rose Switch (ZSØGHT-3,046101/046102)	144,675
2m Beacon (ZS2VHF CW ID)	144,910
6m Beacon (ZS2SIX CW ID)	50,005
6m Link with Lady's Slipper 2m Repeater	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 repeaters on 145,750 MHz (Grahamstown), 145,700 (PE Slipper), 145,650 (Knysna), George's 145,700 and East London's 145,725. 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 can be remotely patched into the 2m network.

Date	Prepare and Read on 145,750
16 Feb	ZS2RT
23	ZS2VM
2 Mar	ZS2U
9	ZS2AAW
16	ZS2AE
23	ZS2RS

DIARY DATES

FEBRUARY

21 PEARS monthly meeting

26 Technical evening

MARCH

15-16 VHF/UHF Contest

21-23 SARL AGM

★ **We *Like* Being *Your* Society!** ★