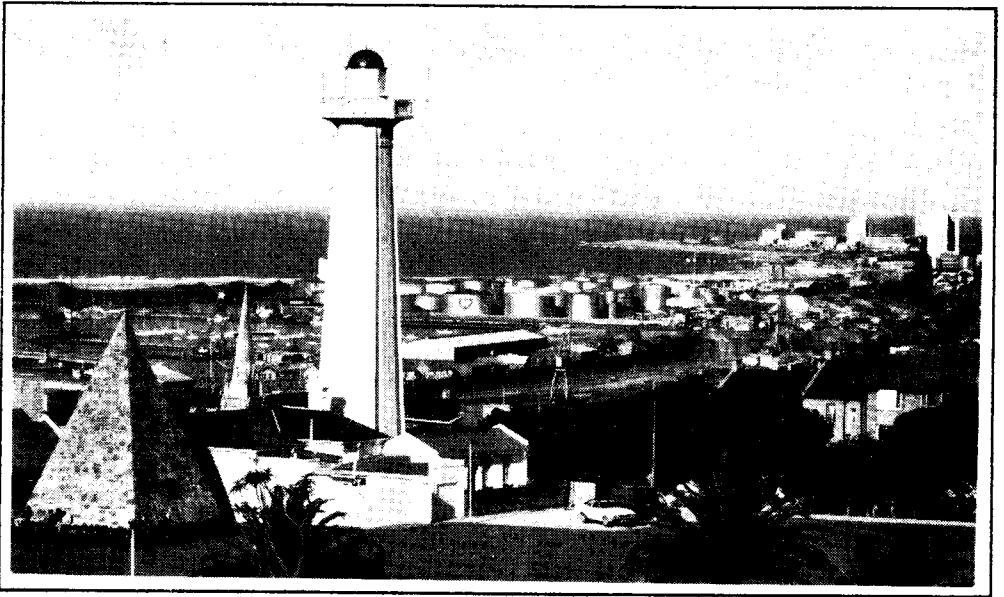




**Q S X**

**P E**



**THIS NEWSLETTER IS PUBLISHED BY THE  
PORT ELIZABETH BRANCH OF THE  
SOUTH AFRICAN RADIO LEAGUE**

**P.O. BOX 10402  
LINTON GRANGE  
6015**

**October 1994**

## MONTHLY GENERAL MEETING

The next monthly general meeting of the Branch will be held on **FRIDAY, 21 October 1994** in the Civil Defence Centre, Westview Drive, Mill Park, Port Elizabeth, commencing at 8 pm (20:00).

SARL President Hans van de Groenendaal ZS5AKV, indicated in the September issue of RADIO ZS that various Councillors would visit branches during September and October to "update members about the SARL and what we are planning and where we need to go". Presumably, therefore, a member of Council will attend our meeting and be available to answer any questions you may have.

Also, Owen ZS2AZ, our Social Activities Committee member, will try to ascertain what you, the members, would like in the way of Branch activities, whether they should take place at the monthly meetings or as separate get-togethers, etc. Since it is **your** branch, your input is important.

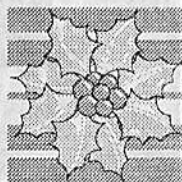
Finally, the October meeting will be your last opportunity to get any motions for the 1995 SARL AGM discussed and accepted as Branch items, so get your motions down on paper and let us put them under the microscope on 21 October.

With all these matters for attention, this will be an extremely important meeting, so please make a point of being there and impress our visiting Councillor with the size of the turnout that the premier Branch musters month after month.

Tea, coffee and munchies will be available at the interval.

### Xmas Party in Summer This Year

As a break with tradition, the Branch will have its Christmas Dinner near the year-end this time. (Many members find April-July a bit too cold to fully enjoy Christmas dinner, and the left-overs tend to go off before New Year's Day comes around).



Thus it has come to pass that, this year, our Christmas Dinner will be held on the 3rd December 1994 at 7.30pm for 8.00pm at the Zwartkops Yacht Club. The cost will be R35.00 per head.

All those wishing to attend are requested to give their names to Owen ZS2AZ as soon as possible so that a firm booking may be made.

The Branch Christmas dinners, no matter what time of the year they are held, are always something to remember, *so be there!* Since it's at the Yacht Club, you can splice the mainbrace to your heart's content, but take care with the hard tack, keep a dignified bearing and don't drive home if you're three sheets in the wind or you may end up in the dock - and the beak you see won't be attached to an albatross!

# CQ de ZS2RL

WELL, THE AGM HAS COME AND GONE, and we soldier on for another year.

By now most of you should know who is on the new committee, that is if you attended the AGM or listen to news bulletins! If in doubt, see the back page of this issue. A big welcome to Gerhard ZS2UM who will take care of Technical Classes, to Owen ZS2AZ who will see to Social, and to Rene ZR2ABD who will be Secretary until the end of the year.



'Tis a pity that so many could not make the AGM, because the weather was most kind to us and we had a ●● - ● - ●●● braai. I know there were many legitimate reasons why many could not be there, but I also know that there were some who were disinclined to attend because of other factors - all I can say to those who feel that way is, don't pull the plug on your Branch because of your disaffection with League politics. Thirty bucks buys you social membership of The Best Branch In The Business. In case you missed it, social membership is now fixed at R30.



I must mention that we were given the use of the Kabega Scout Hall free of charge "because of everything we do for the scouts". This was obviously with reference to JOTA, so I do hope that there will be adequate support from members for this year's JOTA.



Members voted unanimously at the AGM that we try to lease the building situated in Wellington Park (Walmer) from the Council. It's a bit too small, there may or may not be services, but at the end of the day it's a lot more than we can lay claim to at the moment which equals zilch. The potential is there, and with some money and a lot of perspiration we can alter/extend until we have ourselves \* \* \* \* \* accommodation.



We have had our first committee meeting, and things are looking good. Our new Minister for Social Affairs, Owen ZS2AZ, put forward an exciting program for the whole year, the details of which he will no doubt be telling you about.

73s .... *Beavan*

# MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT THE CIVIL DEFENCE CENTRE, MILL PARK, PORT ELIZABETH ON FRIDAY, 19 AUGUST 1994

**Present and Apologies:** ± 40 members attended (as per attendance register).

**Welcome:** The Chairman welcomed all to the meeting. A special welcome was extended to Trevor Robinson from the Scouting fraternity, who is the organiser for this year's JOTA weekend.

**Minutes of the Previous Meeting:** The minutes of the meeting held on 13 July 1994, having been circulated in QSX-PE, were taken as read. Their adoption was proposed by Beavan ZS2RL and seconded by Dick ZS2RS.

**Matters Arising:** Regarding the building of a PE Branch Clubhouse, the Chairman reported that the City Council had recently rethought its policy on the issuing of grants to clubs for the purpose of erecting buildings. He said that, although certain sections of the community would probably be considered more favourably than others, the Branch should in any case submit a request. A rough sketch plan of a proposed building would be done as well as a study of all costs involved.

**Finance:** Clive ZS2RT reported that the Branch's finances are in a healthy state.

**VW Algoa Rally Debrief:** Rally comms. organiser Beavan ZS2RL said that the Rally organisers were very pleased with the efficient and accurate way the Radio Hams had performed during this recent event. Grateful thanks were also expressed for the public relations work done by Lynne ZS2MM in the Press van and Garth ZS2HB who kept the general public informed from his home.

Two problem areas to note for the future were:-

- ★ The close proximity of HF transmissions to the Rally timing clocks, causing them to malfunction and
- ★ On the one or two occasions when radio procedure discipline lapsed – e.g. a third radio station interjecting while two stations were trying to make contact with each other.

Other points noted from the meeting were: inaccurate map markings; no Rally officials available to check the marshalls' positions; marshalls sited in a hazardous position; idle chatter by hams delaying the transmission of important Rally matters; and a suggestion that results not be repeated unless asked for by the results controller.

The Chairman then asked for volunteers to help with comms. for a local motor rally to be held over the coming weekend.

**JOTA:** This event is due to take place on the weekend of 15 October 1994. Lynne

ZS2MM requested that the Branch run three separate radio stations: Gilsands - Walmer - Kabega. Lynne and Dick ZS2RS to liaise with the scouting groups.

**General:**

★ The Chairman reported that he had sent a letter to SARL Headquarters, objecting to the personal and public attack on Garth ZS2HB and his family. This followed a message Garth had placed on the PBBS regarding the renewing of Amateur Radio licences. Gerhard ZS2UM suggested that the Branch lodge a vote of no confidence in Council, not only because of this but also because of their lack of response to the many requests and enquiries that have been made in the recent past. The meeting felt that this would be more appropriate as a matter for discussion at an AGM.

★ Garth ZS2HB objected to the way in which certain messages sent by him and another member on the PBBS (which has always been regarded as a Branch facility) had been censored. He felt that, unless they infringed the Radio Regulations, messages should not be blocked by the Sysop even if he does not personally agree with their contents. Blocking is undemocratic and unfairly allows only one side of a matter to be broadcast. The Committee will deal with the matter.

**Annual General Meeting:** The Chairman reminded all that the Branch AGM would take place on Saturday, 17 September 1994 at 16:00 in the Kabega Park Scout Hall. It was suggested that a bring and braai be arranged to follow the meeting.

**Closure:** The meeting was then adjourned for tea, after which Andre ZS2BK gave a very interesting talk on Mobile Data Systems, a most sophisticated vehicle tracking and data interchange system.

The meeting closed at 22:45.

Clive ZS2RT - Hon. Acting Secretary



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## Report

# AGM '94

The Branch AGM was held on Saturday, 17 September and, although the turnout was not as large as usual – perhaps some were put off by the poor weather earlier in the day – a very enjoyable time was had by all. We were graced by the presence of John, ZL2BLY (yes, ZL – see how far our popularity extends!), Roger ZS1J and ex-Chairman Colin ZS2CR. Many XYLs and harmonics also enjoyed the camaraderie that makes this undoubtedly the premier Branch, and of course the braai, for which the weather cleared beautifully.

Your new Committee members for the ensuing year are well known to you by now – they are listed on the inside back page of this august periodical. (Were we not also the most *modest* Branch we would probably splash them all over the *front* cover).

Anyway, apart from the boring stuff, a number of trophies and awards were handed out, namely:

- |                                 |   |
|---------------------------------|---|
| Constructors' Trophy:           | jointly to Neels ZR2ABT and Chris ZS2AAW for construction work in respect of repeaters; |
| Hamnet Simulated Emergency 1993 | Lynne ZS2MM for coming first in the single operator stationary mobile section.          |
| Ham Spirit                      | Vic ZS2SZ for his total involvement in Branch affairs.                                  |
| Special Awards                  | Garth ZS2HB for producing the best Branch mag in the business;                          |
|                                 | Sandy ZS2LN for all his background work in support of the Branch.                       |

Congrats to all concerned.

A possible clubhouse – property of the Municipality – was discussed and, although it is rather small, it has potential and its acquisition will be followed up.

A decision was also taken to relay the Branch bulletin on 80m in addition to the 40m and 2m transmissions while poor skip conditions on 40m persist, so listen on 3640 kHz if you sukkel with 40 or 2.

## **SECRETARY REQUIRED**

Renee Olivier ZR2ABD, our new Secretary bird (Beavan's terminology) was kind enough to take on the job to help the Branch out until the end of this year, after which her other commitments will make it impossible to carry on in the post. The Branch, therefore, will need a volunteer to take over from Renee when the time comes. How about you – or you – or even you? Please queue from the left at the next Branch meeting.

# dB or not dB?

(Part 2)

STEVE WILLIAMS, ZS2WS

Last month we saw how the deciBel helps in the calculation of power ratios. We must now see what happens when we deal with voltages.

Consider Ohm's Law for Power =  $\frac{V^2}{R}$

If the powers in the original formula were substituted with the above formula, then the formula would be as follows:

$$\text{dB} = 10 \log \frac{\frac{V_o^2}{R}}{\frac{V_i^2}{R}}$$

Now if the input and output impedances or resistances of the equipment are equal, say  $75\Omega$  as for TV amplifiers, then the R's would cancel out and the formula would look as follows:

$$\text{dB} = 10 \log \frac{V_o^2}{V_i^2}$$

Further simplification could follow:

$$\text{dB} = 10 \log \left[ \frac{V_o}{V_i} \right]^2$$

This can again be further simplified:

$$\text{dB} = 20 \log \frac{V_o}{V_i}$$

Now that we have gone through the painful process of deriving the formula for dB using Voltage, it must be appreciated that this is only applicable for Voltages that are terminated in the same value of impedance.

As the dB is extensively used in the broadcasting field, various standards

have been adopted for easy use. Two commonly used standards are the  $\text{dB}\mu\text{V}$  and  $\text{dBmW}$ .

The **dBmW**, more commonly known as **dBm**, is the gain ratio referred to 1mWatt of power. The impedance for audio signals is  $600\Omega$  and  $50\Omega$  for radio frequencies.

The **dB $\mu$ V** is referred to  $1\mu\text{V}$  in a  $75\Omega$  system. This standard is generally used for receiving signals.

If it is stated that a signal is of a level of  $60\text{dB}\mu\text{V}$ , then it is implied that the signal is 60dB above  $1\mu\text{V}$ .

To find out what the Voltage level is, we can substitute the values into the formula for Voltage. (Remember that the impedance is unchanged as only the voltage has increased).

$$\begin{aligned} 60\text{dB} &= 20 \log \frac{V}{1\mu\text{V}} \\ V &= \text{anti log } \frac{60}{20} \\ &= 1000\mu\text{V} = \underline{1\text{mV}} \end{aligned}$$

Shortcuts can also be applied when using voltages. With reference to the power formula and voltage formula, it must be appreciated that for the voltage to double, the dB ratio must be twice that as for power.

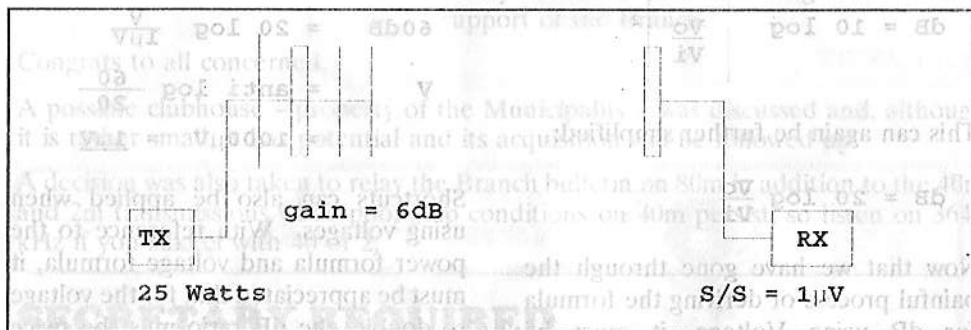
Therefore, a 6dB increase in the voltage will amount to the doubling of the signal. A 20dB increase will amount to the voltage increasing 10-fold.

dB increase/decrease	Power	Voltage constant $\Omega$
+ 3	$\times 2$	
- 3	$\div 2$	
+ 6	$\times 4$	$\times 2$
- 6	$\div 4$	$\div 2$
+10	$\times 10$	
- 10	$\div 10$	
+20	$\times 100$	$\times 10$
- 20	$\div 100$	$\div 10$
+30	$\times 1000$	
- 30	$\div 1000$	

Finally, let's look at a practical situation. Consider the diagram below.

As can be seen, only a dipole is used at the receiver end. The  $1\mu\text{V}$  signal received is intelligible, but the noise is rather annoying. The station at the receive side wants to improve the

the Tx's power by 6dB. That will result in an increase of 4X the power and the output would be 100 Watts. This would be a costly method as it would require more equipment and the power consumption would also increase dramatically.



situation, by increasing the received signal strength by 6dB. This will give one more "S" point and will double the received voltage.

There are three ways of achieving this. The expensive way would be to increase

The second method would be to increase the Tx antenna gain by 6dB. This, unfortunately, would also be an expensive exercise as the 6dB gain would require a much larger antenna.

The third method would be that of



increasing the gain of the Rx antenna. As this antenna is only a single dipole, the gain could be increased with minimum cost. This method would be the one employed as it is the most practical and cost-effective. The dB is a wonderful tool when planning a system and the greatest part

is that it is ABSOLUTELY FREE.

**Errata:** Last week a typographical error reared its head. The dB is singular as it is a ratio, and should not be referred to in the plural.

## JOTA 15/16 OCTOBER

There will be three JOTA stations operating in PE this year. The one at Gilsands on the Schoonies road will operate on Saturday 15 October only, while those at the Kabega Scout Hall (van Plettenberg Street) and the Walmer Scout Hall, near the eastern end of Fordyce Road, will operate on Saturday and Sunday.

They will open at about 09:00, continuing until conditions drop out on Saturday and (at Kabega and Walmer) until around lunch time on Sunday. They will appreciate your support, both in person and on the air.

## DX QSL ADDRESSES

L. LEDOUX, ZS2LL

Here are some more QSL addresses, all from 40 metres CW:-

CP94USA	PO BOX 2111, La Paz
T91EVC	DJ0QJ
9U/15FHI	F1FHI
TN0CW	DK7PE
VY2OX	via VE6 Bureau
9M2DM	JA7TQK
LX0SAR	DL5VU (received mine already)
SV8/HA0HW/P	HA0HW (op. Lace)
T99W	DL1QQ
OM5XX	OK3CQR
OX/DL2MDZ	DL2MDZ
FG5ED	PO Box 444 Papatite, Guadeloupe Is.
OM3CAQ	Vilo, PO Box 1 Bratislava
OM5TD	OK3TDO
TK/DL2HYF/P	DL2HYF
GB2QE	RSGB Bureau
T5AR	SM0DJZ

Good luck, 73 es DX ... Lambert.

# Long-distance Experimental Repeater in the Pipeline

MIKE BOSCH, ZS2FM

Plans are well advanced for the establishment of an experimental repeater that should provide long-distance 2-metre communication along the Eastern seaboard. The project will be based on the old 145,775 MHz University repeater which was phased out some months ago. It will be implemented in six phases:

**Phase 1:** The repeater will be switched on in its present form for a short period of time, to enable the recording of field strength readings for reference purposes.

**Phase 2:** Due to the impending installation of a monitoring system by the Department of Posts & Telecommunications on top of the UPI tower block, all transmitting equipment will ultimately be removed from that site. Hence, the transmitter and the receiver, which is located four kilometres away, will be switched around. The equipment will also be overhauled and peak tuned.

**Phase 3:** Suitable directive antenna systems will be erected at both the transmitting and receiving sites, permitting the equal radiation and reception of **vertical, horizontal and circularly polarized signals.**

**Phase 4:** The receiver sensitivity will be improved by adding a low noise pre-amplifier on the masthead of the antenna. This is possible because of the great separation between the transmitting and receiving antennas. (They are interconnected by landline leased from Telkom by Ken ZS2OC).

**Phase 5:** After many long-distance tests,

the antennas will be replaced with narrow-beamwidth (30°) high gain Yagi arrays. This will produce optimum performance over the VHF path along the Eastern seaboard.

**Phase 6:** Power will be increased from the present 12 Watts up to 25 Watts and ultimately to 50 Watts if required.

All radio amateurs - members or non-members of the SARL, Hamnet or any other radio clubs - are invited to use this repeater even for normal communications.

Those amateurs with a deeper interest in VHF radio could make use of the special facilities offered by this long-range repeater and study the vagaries of Tropospheric propagation along the Eastern seaboard, as well as establish long-distance contacts.

There are no restrictions attached to its use, but please bear in mind that it is primarily a long-distance facility, so keep overs short and allow ample time between overs for "DX" stations to break in. Remember, this project doesn't cost the Branch a single cent - so enjoy it!

## How it all came about

As you probably know, the Branch relinquished the UPE repeater some

months ago and the licence was cancelled. The writer then approached the owner of the equipment, Ken Victor ZS2OC, who made it available carte blanche to the writer for experimental purposes, if it could be re-licensed.

The Branch was informed and the writer made a formal application to Council for the relicensing. Council fully supported the request but suggested that it should go through the normal channels, i.e. via the PE Branch.

A meeting was set up between the local Repeater Committee and the writer, at which the former stated that they were completely in favour of the experimental project but with only one proviso, i.e. the Branch must own and effectively control said repeater - this being in accordance with the official SARRL repeater policy in force at the time.

Unfortunately this proviso presented something of a "skurwe turksvy" or fly in the ointment for various practical and financial reasons.

In the meantime, Council requested a more detailed document covering the modus operandi of this proposed long-distance experimental repeater. Following the Council meeting on 20 August 1994, Colin de Villiers ZS6COL, Councillor: Licensing, released an official statement reflecting a fortuitous change in policy. [I think this resulted from a directive at the 1994 SARRL AGM to attempt to reconcile the policy with objections that one or two branches had raised regarding provisions which they regarded as unacceptable (p14, August RADIO ZS-Ed.).

From the statement it emerged that: any SARRL Branch, non SARRL club or repeater working group may apply to the local Repeater Regional Committee

for approval to erect a repeater; the Regional Committee has no mandate to evaluate the desirability or otherwise of the application; and, since it is the stated aim of the SARRL to encourage radio related experimentation of any legal nature, the SARRL believes that this project more than justifies the reactivation of this (UPE) repeater.

Should there be a problem, particularly in regard to the cost of the Telkom landline (R720 per annum), then it was proposed that Mike should establish a working group specifically for this project.

### UPE VHF EXPERIMENTAL GROUP IS BORN

Our Chairman Beavan ZS2RL suggested to the writer that it might be in the best interests of all to "go it alone" with a working group. The writer accepted the suggestion with initial reluctance but, after a night's sleep and a "few coats of thinking", realized that Beavan was probably right.

The writer was aware of the politics that had surrounded this repeater and wished to transfer it from the political to the experimental arena to the benefit of all local radio amateurs. So he set about establishing the UPE VHF Experimental Group for this project and advised Council accordingly. A number of BSc students will be involved of which two are licensed radio amateurs.

This is all in line with the writer's projected aim of establishing a radio club at the University of Port Elizabeth, similar to ZS6TUK at Pretoria, ZS6WUP at Wits etc. When this comes to pass, the writer will encourage their members to join the SARRL and the local Branch.

# IMPORTANT QUESTIONNAIRE

We are presently updating our records. Members (that includes Social members) are earnestly requested to complete the details listed below and return this to Owen ZS2AZ at the next meeting or post to PO Box 10402, Linton Grange 6012 as soon as possible. [We know that members don't like to destroy the finest newsletter in the business, so a photocopy or hand-drawn facsimile will be accepted-Fd.]

NAME: \_\_\_\_\_ CALLSIGN: \_\_\_\_\_

FIRST NAMES: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ Tel. N° (H) \_\_\_\_\_

\_\_\_\_\_ (W) \_\_\_\_\_

\_\_\_\_\_ Post Code \_\_\_\_\_ Dial Code \_\_\_\_\_

NAME OF XYL OR YL (one only!!) \_\_\_\_\_

\*DATE OF BIRTH - SELF: \_\_\_\_\_ XYL/YL \_\_\_\_\_

WEDDING ANNIVERSARY DATE: \_\_\_\_\_

OCCUPATION: \_\_\_\_\_

HOBBIES OTHER THAN HAM RADIO: \_\_\_\_\_

\_\_\_\_\_

HAM RIG/S: \_\_\_\_\_

\_\_\_\_\_

ANTENNA/E: \_\_\_\_\_

\_\_\_\_\_

---

\* If you're over the hill and don't want us to know about it, you don't need to quote your *year* of birth even if you *can* still remember it!

---

# HAMNET NEWS

## Hamnet Modules

The subject of modules once more rears its ugly head. It is strange that members who have passed the harder RAE appear to be scared of doing these modules. It should be fun and interesting, and the chances are that you will be at least a bit better operator for it. After all, is that not what ham radio is all about?

Contact me at telephone 30-2983 for further information or a test.

□ □ □

Congratulations to Mike ZR2MBM who has passed his drivers test. He will now be an even more useful Hamnet member. Morse test next?

73,

AI, ZS2U

## Notepad-

Good luck to all those writing the **RAE on 10 November**. There have been 237 entries country-wide, and we hope PE will have one of the highest pass rates again. Remember to **read every question properly – see what the examiner wants, not what you think he is asking!** If in doubt, read the Afrikaans version. Check over your answers when you have finished with time in hand. And **relax!!** It's not *that* difficult.

We erroneously referred to **Baycom Version 6** in last month's QSX-PE. The latest version, for which Gerhard is translating the manual, is 1.60. We do not usually make mistakes in QXS but were only human. Sorry!

We try to get QSX ready for printing two weeks before the Branch meeting so that we can hand Committee members their copies at their committee meeting, thus saving a few bob in postage. We would be glad if **contributions for publication** – especially technical articles with diagrams – could be furnished to the QSX production team at least three weeks before the monthly meeting. Thanks in anticipation...

André ZS2ACP is doing FB with his **homebrew 80/40 metre QRP rig**. Congrats, André. Hopefully, an article describing the little outfit will appear in RADIO ZS in the near future.

Q



# *Congratulations 'n stuff like that*

## on your birthdays:

### *October*

- 23 Neil Holmes ZS2AI
- 24 Cathy Gerstle XYL of ZS2WG
- 26 Andries van Wyk ZS2P  
Stoffel Carr ZS2C
- 27 **Iris Hayes ZS2AA**  
Ria de Vos XYL of ZS2ABY
- 28 Doris Thomas ZS2TL XYL of ZS2AZ
- 29 Noel Staples ZS2AAS

### *November*

- 2 Ian Mackenzie ZS2-162
- 6 Viv Moore ZS2VM
- 11 Louis Terblanche ZS2KT
- 14 Dot Clarke XYL of ZS2MF
- 19 Henk-Jan Busse ZS2-273

## on your anniversaries:

### *October*

- 24 Jo & Al Akers ZS2W & ZS2U

### *November*

- 3 Dot & Ron Clarke ZS2MF
- 20 Shirley & Stoffel Carr ZS2C  
Mel & Beavan Gwilt ZS2RL

## on your achievements:

\* Poppie ZS1AFZ, who took second place in the SARL CW contest, being beaten on her first venture into the contest by veteran Al, ZS1AAX.

\* Bud ZS1B/ZS2CA, for taking fifth place out of 58 logs submitted in the SARL Phone contest this year;

\* Lynne ZS2MM who came 10th overall, was 1st YL and 1st ZS2 operator in the contest. Says next year she'll be in the first five places;

\* Andre ZS2AL, who was placed 28th overall and 2nd in ZS2.

## on your callsign upgrade:

Chanel Layton, of Uitenhage, now

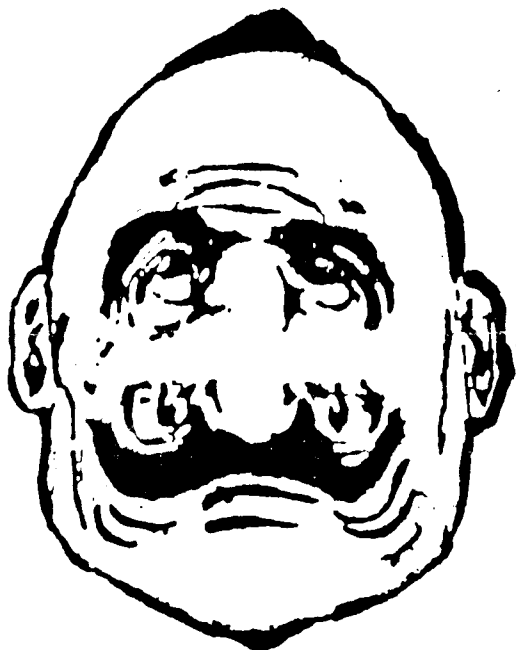
ZS2CNL with effect from her 16th birthday! Good going, Chanel.

□

*Gallivanting* – Anne ZR2ABC and Vic Olivier ZS2SZ are still enjoying the smog of Mossel Bay, while John ZS2J has another few weeks in the States before his return. We miss your cheery company.

Al ZS2U, Peter ZS2PF and Mike ZR2MBM had a spell in Ciskei on what I guess must henceforth be called a "prefixpedition".

## **BEFORE QSL RECEIVED**



**AFTER QSL RECEIVED !!**

## Port Elizabeth Branch Committee

Chairman, Rallies	Beavan Gwilt ZS2RL	30-6968
Vice Chairman, Social	Owen Thomas ZS2AZ	38-4134
Secretary	Renee Olivier ZR2ABD	30-2440
Treasurer, Assets Control	Clive Fife ZS2RT	32-3203
assisted with Assets Control by	Lynne Crothall ZS2MM	35-4671
Awards, Library	Peter Flynn ZR2PF	46-4096
Repeaters, Packet	Wolf Gerstle ZS2WG	30-1510
Special Events	Dick Schönborn ZS2RS	56-3908
OSX Manager	Vic Olivier ZS2SZ	30-2440
assisting with OSX Editing/layout	Garth Laaks ZS2HB	38-1101
Technical Classes	Gerhard Baum ZS2UM	30-5224

## Branch VHF & Other Services

### REPEATERS

Town VHF	145,050/650	Kareedouw	145,125/725
Town UHF	431,050/438,650	Lady's Slipper	145,100/700
Grahamstown	145,150/750	Uitenhage	145,075/675

### OTHER SERVICES

Packet Bulletin Board (ZS0NTP)	144,675
Digipeater (Grahamstown - ZS0GHI)	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
Welax Relay (Meteosat)	145,350

## Sunday Bulletins

Branch bulletins are transmitted on Sundays immediately after the Headquarters English transmission, i.e. at about 08:45, on 3640 and 7098 kHz as well as on the 2 metre linked repeater system giving **coastwise coverage from East London to beyond Knysna** (depending on link availability) via 145,750, 145,700 & 145,725 MHz.

Date	Prepare and Read on 145,700	Relay HQ on 2m, Relay PE on 40m & callins on 40m
16 Oct	ZS2AZ	ZS2WG
23	ZS2RL	ZS2WG
30	ZS2UM	ZS2RL
6 Nov	ZR2ABD	ZS2WG
13	ZS2SZ	ZS2RL
20	ZS2PF	ZS2WG