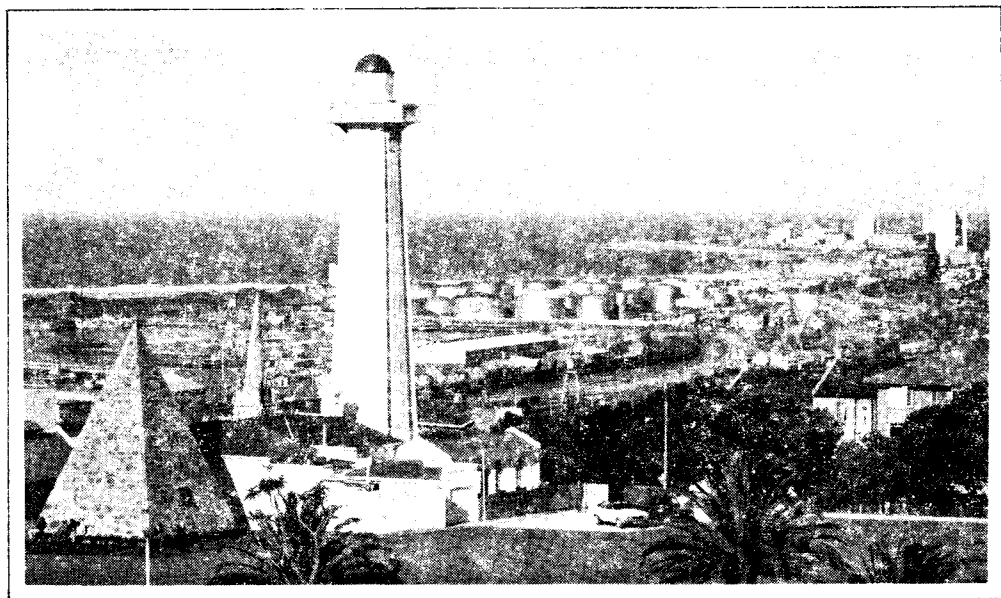
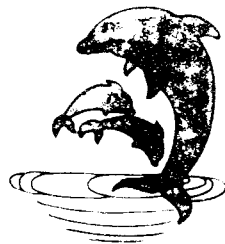




Q S X P E



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

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

FAX (041) 35-1309

7 - 9 2

NOTICE OF MEETING

The next monthly general meeting of the Port Elizabeth Branch will be held on **Friday, 10 July 1992**, commencing at 20:15, in the Civil Defence Centre, Westview Drive, Mill Park, Port Elizabeth.

Please note that this is a week earlier than usual, i.e. the *second* Friday instead of the normal *third* one.

Since this is the last meeting before the Hobbies Fair and the VW Algoa Rally, the evening will be spent in final planning and briefing for these two interesting events, after which we will enjoy a general natter.

Can we have another bumper meeting of over 50 like last month? Of course we can! CU there!

VW ALGOA RALLY

More operators are still required to help with communications for this event, which takes place on Friday evening, 17th and on Saturday 18th July. If you can help for a few hours on one or both dates, please contact Al ZS2U as soon as possible. **Those helpers who have not yet returned their questionnaires and insurance forms to Al should do so without delay** please so that the formalities can be attended to in time.

Briefing for all rally operators will be done at the Branch meeting on 11 July (see notice above). Please bring pads and pencils. Operators should also listen for further announcements on the Branch bulletin.

It is advisable to have a better antenna available than the usual mobile unit because you may not be in the optimum position for access to a repeater. Organise a Slim Jim or portable beam if possible. Al will give advice on constructing one if he still has the time. See his J antenna article on page 6.

See You at the Fair!

Remember we'll have a station and display at the Hobbies Fair, which will take place in the Walmer Town Hall from Thursday 16 to *Sunday* 19 July. If you can help with the

erecting or operating, please let Viv ZS2VM know - telephone 30-4433 (home). Even if you can't help in this way, do make an effort to visit the stand and lend moral support.

*** WANTED * wanted * WANTED ***

Variable capacitors suitable for antenna 'tuning' units (such as those found in old valve radios and transmitters) required by our new hams - inform Garth (tel. 38-1101) if you have any for disposal please.

Spectrum programs for Facsimile and/or Weather Fax - Royden Thompson ZR2ABF, tel. Grahamstown 23311 or the repeater.

**MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH
BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT THE
CIVIL DEFENCE CENTRE, MILL PARK ON FRIDAY,
19 June 1992**

PRESENT: 53 members and visitors, apologies as per register. Colin ZS2CTR offered to act as Secretary in the absence of Fred ZS2EQ.

WELCOME: The Chairman welcomed all to the meeting, especially Gideon Grobbelaar and Paul de Vos from Humansdorp, and several members and visitors from Humansdorp.

MINUTES OF THE PREVIOUS MEETING: The minutes of the General meeting of 15 May 1992, as printed in QSX, were confirmed, proposed by Wolf ZS2WG, seconded by Van ZS2JC.

MATTERS ARISING: Hobbies Fair: Viv ZS2VM was "elected" to convene this event, and was thanked for "offering" his services. Garth ZS2HB would prepare pamphlets which Colin ZS2CTR would photostat.

FINANCE:

1 The Treasurer, Colin ZS2CTR reported that the Branch funds stood as follows:

General Fund	R2 570.12
AGM Fund	R1 818.00

2 Colin informed the meeting that Trevor ZS2AE had submitted a claim for R450.11 in respect of various repeater expenses incurred which the Branch had no hesitation in reimbursing. However, Trevor had offered to donate this amount to the Branch 1994 AGM Fund. This announcement brought spontaneous applause from the meeting, and the Chairman expressed the sincere appreciation of the Branch to Trevor for his generosity.

3 Raphy ZS2SP queried the payment of subscriptions either to the Branch or Headquarters. Colin ZS2CTR replied that, in terms of the Constitution, members could remit their subscriptions to either place, and he was happy to accept payments as had been the practice in the past. These would be receipted and would bring the Branch a small amount of interest between regular monthly remittances to Headquarters.

CORRESPONDENCE:

1 Letter received from Ossie Carstens re JOTA and involvement of Girl Guides was read and passed onto Dick ZS2RS for follow-up. Viv ZS2VM mentioned that a senior Scouter had contacted him about making JOTA a bigger event this year. The Chairman suggested that Viv invite the Scouts' representative to a Branch Committee meeting to discuss the matter.

2 Letters received by Colin ZS2CTR from Headquarters regarding Novice RAE and from Reno ZS6OF in reply to the Branch response to the DAC proposals. This letter would be responded to by Colin in order to clarify the Branch point of view. *Ito page 4→*

GENERAL:

1 Marge announced that 10 Class A RAE candidates and 3 Class B candidates had passed the May 1992 examination written in Port Elizabeth. She congratulated them as well as the several new licensees present at the meeting.

2 Owen ZS2AZ gave details of the Bingo sessions which were planned to raise funds for the Branch's 1994 AGM Fund. The cost would be R10,00 per card covering 5 games. The date of Friday 3 July 1992 at 20:00 in the usual meeting venue was agreed upon, and all would be welcome. Members could bring their own refreshments as long as they do not disrupt the games. Owen advised that Bingo sessions were quite legal if conducted within a club. Marge reported that Owen had very kindly bought a Bingo games set for the Branch to use, and thanked him for this.

3 In view of the Algoa Rally it was decided that the July general meeting would be brought forward to Friday 10 July 1992.

4 Trevor ZS2AE reported that he would be installing some filters at the Grahamstown repeater over the coming weekend.

5 Colin ZS2CTR reported that Neil ZS2MG had kindly made available a PCB positive for the previously proposed WEFAX kits which meant that the Branch could now prepare its own kits for members. Ed ZR2EKT offered to make the printed circuit boards at reasonable cost and this was gratefully accepted. Thirteen members indicated that they were interested in the kits and Colin would advise of the cost as soon as this was finalised.

6 Mitch ZS2DK read out an interesting letter received from the Russian QRP Club together with a card. He would pass this on to Dave Gemmel ZS6AAW for possible publication in Radio ZS.

7 Colin ZS2CTR reported that following the actions of Mike ZU1MBM, the Alexander Road High School had agreed to Novice RAE classes being held at the school and a school Radio Club being formed there next year. The Chairman thanked Mike for promoting amateur radio at the schools.

8 Al ZS2U mentioned some points regarding the Algoa Motor Rally and showed some simply-made portable 2-metre antennas that could be used. A meeting of rally operators was arranged for Saturday 11 July 1992, at which final details would be discussed.

9 Dick ZS2RS then arranged a raffle of a clock radio kindly donated for the Branch 1994 AGM Fund by Viv ZS2VM. It raised the tidy sum of R141,50 and the radio was won by Trevor ZS2AE.

After the tea break Vic ZS2SZ provided a video presentation on conservation in South Africa which proved most interesting. Marge thanked Vic for arranging the video and all for attending, and declared the meeting closed at 21:55.

CHAIRMAN

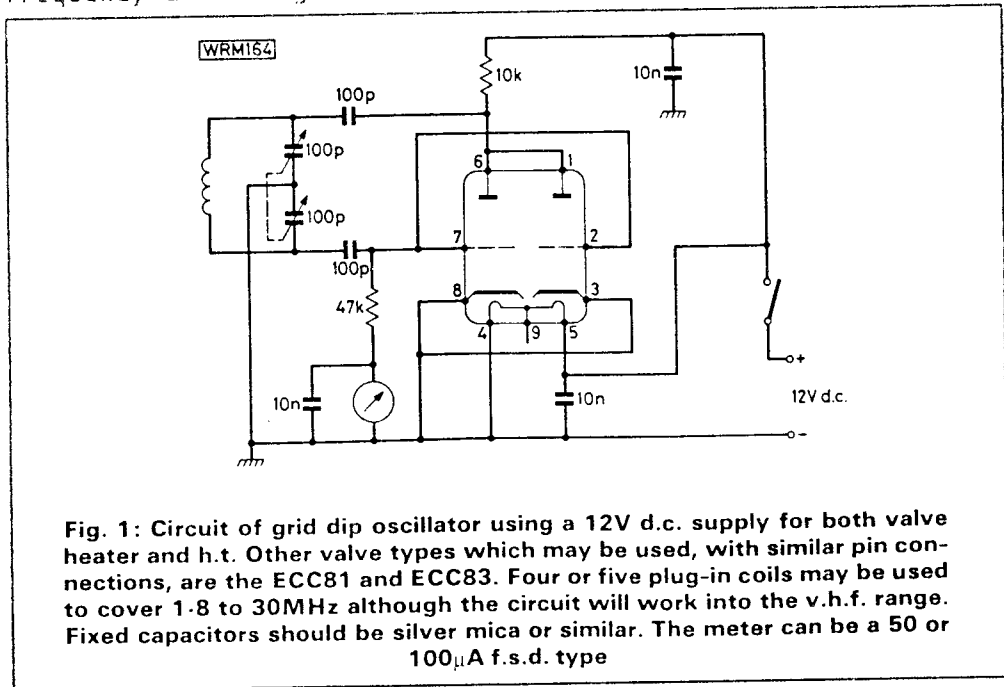
SECRETARY

EASY GRID DIP OSCILLATOR

ADAPTED FROM PRACTICAL WIRELESS, JUNE 1984

If one does any form of constructional work with receivers or transmitters then a dip oscillator is a very necessary bit of equipment for determining the resonant frequency of a tuned circuit or **even an antenna**. Briefly, the dip oscillator is calibrated in frequency and the grid current

state devices are seldom as smooth in operation as a valved design. Eric Dowdeswell G4AR's simple circuit for a GDO shown here uses a 12AU7 double triode valve but, instead of the fairly high 100 or more volts normally applied to the anodes of such valves, he got this circuit to work with a mere 12



(in the case of a valve dip oscillator) is monitored on a meter. This current will dip when the oscillator, loosely coupled to the circuit under test, is tuned to the (unknown) resonant frequency of the latter circuit. This occurs because the circuit under test absorbs energy from the oscillator when they are both on the same frequency.

Dip oscillators using solid

volts from a car battery. The dual filaments of the valve, connected in series with one another, are powered from the same 12V source, as indicated in the diagram.

Since most shacks today have a 12 or 13.8V DC supply for driving receivers, transceivers or test gear, this old circuit may therefore prove of interest, being simple to construct and a delight to use. **to p 6** →

The GDO dial may be calibrated using a short-wave receiver located within 600mm or so. When using the GDO, keep the coupling to the tuned circuit that you are measuring as loose as possible to give the faintest of dips on the meter.

For accurate frequency measurements, check the GDO frequ-

ency on an adjacent receiver rather than relying upon the GDO dial reading because variable loads that external circuits impose on the GDO 'pull' the frequency to varying degrees. The GDO calibration is therefore not accurate under all operating conditions. **SK**

PORTABLE 2-METRE J ANTENNA

AL AKERS ZS2U

Most amateurs who operate on two metres have a base station antenna, a mobile antenna or both. Another type that is not so evident among amateurs is a *portable* antenna. At times it could be handy to have one that fits neatly into the car boot and can quickly and easily be erected to a height of four to seven metres. I have found such an antenna to be particularly useful for rallies.

There are a number of ways one can make up a suitable mast, or one could perhaps simply *acquire* one. My most recent example of a portable antenna used material I had available. It is a J antenna and the mast consists of five sections of pipe from an old tent, which fit into each other and give the antenna an effective height of 5,6 metres. It uses one set of four stays, but could also be fastened to a tree or bracket on the car. The whole antenna - pegs, coax line, the lot - fits into a bag one metre long and about 10 cm diameter.

The antenna is as shown in the diagram. The quarter-wave matching section is 50 cm long and fits into a length of white PVC pipe 20 mm in diameter. The matching section would normally be 51,5 cm long, but the pipe lowers the resonant frequency somewhat and I found that 50 cm works fine. **Use the white PVC pipe, not the black**

type, which contains carbon and has a greater effect on the antenna.

The 98 cm section is the half-wave element and this could be a stainless steel whip or, as in my case, a telescoping whip. After extending the whip to the right length, I soldered the sections at the joints so as to keep the length correct and to ensure good connections. The whip section has a banana plug soldered to the bottom, and the top of the PVC pipe has a banana socket fitted into it and connected to the top of the matching section.

The coaxial feedline is tapped up on the matching section to effect a match. A good point to start is about 5 cm up from the bottom, then shift the tap point up or down till you get the lowest SWR. My antenna has an SWR of less than 1,4:1 over the frequency range I require, that is 145 to 146 MHz.

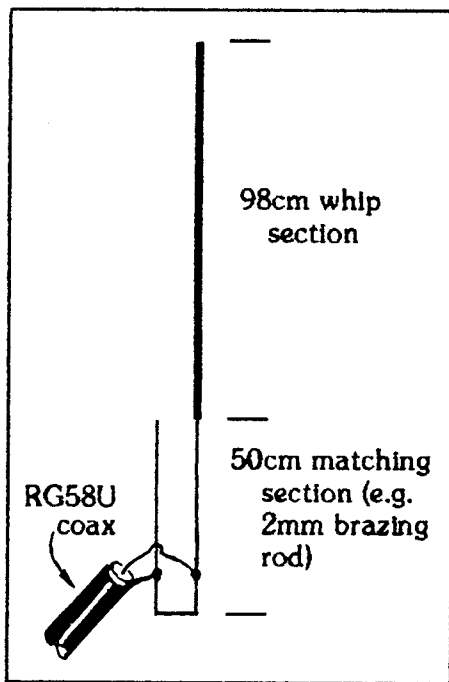
I used 2 mm diameter brazing

rod for the matching section. Discs cut from polyethylene rod and drilled with holes 10 mm apart act as spacers, keeping the matching section spacing constant and holding it in place in the pipe, into which the discs fit snugly.

This antenna will outperform the normal mobile antenna because of the extra height, in this case about four times, which represents about 6 dB. If the mobile antenna is a quarter-wave in the middle of the car roof, you can add an extra 2 dB and if it is a five-eighths wave mounted on the boot or other part of the car of equivalent height, you can still add a dB or more to that 6 dB.

In the rally last year, using a five-eighths wave antenna on my high-roof Kombi, I could get into the repeater but the signal had rain on

it. Changing to a portable J antenna gave a solid signal without a trace of rain. **SK**



*** S M O K I N G I S A D Y I N G H A B I T ***

BEAM DONATED TO YOUNG HAMS

An anonymous benefactor has donated an HF beam, tubing and other fittings for use by our young Novices at the Westering High School Radio Club, which proudly sports the Novice call sign ZULWHS. The eager young hams have removed the beam to the QTH of one of their members to give it a once-over before it is erected at the School.

To the good Samaritan, whoever you are, the Branch says a hearty "Thank you" on behalf of the School Club and Hamdom in general. **SK**

1994 AGM FUND GETS INJECTION

The fund has received a welcome boost with a generous donation from Trevor ZS2AE. Instead of taking a cheque for the R450 in expenses that he has incurred in connection with maintenance and improvement of the Branch repeaters, he donated the amount to the AGM Fund. In addition, Viv ZS2VM donated a clock-radio and this netted R141.50. Thanks, guys.

The Fund now stands at R2410, but don't be complacent - we need at least R7000 before 1994 is rung in, and we may yet have to get *violent*.

QSX-PE is read, believed and quoted by 200 readers throughout South Africa. And as you read this, your own credibility is being enhanced by people watching you turn the page around and around as you stare at this drive!

BULLETIN ROSTER

	40 METRE BULLETIN	2 MTR NET
Jul 12	ZS2CA	ZS2CTR
19	ZS2SZ	ZS2EQ
26	ZS2VM	ZS2HB
Aug 2	ZS2OB	ZS2AZ
9	ZS2CTR	ZS2UJ
16	ZS2EQ	ZS2CA
23	ZS2HB	ZS2SZ



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PC Boards, Components & Things

Neil Fulton ZS2MG has offered to make a film positive of any PC board featured in QSX, while Eddie Tunnbridge ZR2EKT, who trades as **PC Electronics in Uitenhage** (tel. 99-22-589), has kindly offered to *make* the boards at a very fair cost to members - drilled and tinned!

Professionally-made boards for the Simple Simon DSB transmitter come out at R20 for the generator, R15 for the linear amplifier and R5 for the low-pass filter.

Taking things even further, Martin and Sharon Layton ZR2ABN and ZR2ABK, (**Uitenhage TV Video Services**, tel. 966-1651), have heaps of electrolytics that they will *give* to constructors for their Branch projects. They can also supply your other electronic component needs at favourable prices.

So right here in our own backyard we now have a virtual production-line and all *you* have to do is stick the bits in the holes, drop a few blobs of solder onto them, put it all in a box, switch on and stand back so the smoke can escape unhindered.

* * *

Hard-to-get Components

A Johannesburg company specialises in the procurement of transistors, ICs, diodes and rectifiers that have become obsolete or are difficult to obtain from normal sources. They have access to 12 million hard-to-get devices worldwide.

They can also supply rare technical data on semiconductor devices dating back to the 1960s, find direct equivalents of obsolete devices or even have them made to order. All the components are unused, but each is tested before delivery.

Call "**Obsolete Semiconductors**" at (011) 477 9297 or fax them at (011) 477 8588.

* * *

Weather Fax and Packet Units

Colin ZS2CTR will have kits for the **Wefax** project available soon at a cost of a mere R45. Place your order with Colin ZS2CTR now, with your payment so that he can obtain all our component requirements together. Of course, you need an IBM compatible PC to receive weather pictures via this unit and, with a super VGA monitor, you can use the program developed by Keith Laaks ZS6TW for an improved picture. (He is currently polishing it up for general use).

The **Poor Man's Packet** unit can also be constructed at an estimated R80. This, together with your IBM compatible PC and VHF handheld, will give you access to other packeteers on VHF, some spacecraft, and of course the Branch's Packet Bulletin Board System. The PBBS also offers you a VHF-HF repeater facility. Again, contact Colin quickly if you're interested in a kit.

DITS 'n DAHS

Martin ZR2ABN of Uitenhage, in his second attempt at working via satellites, contacted **two stations in USA** and **another in the UK** via Oscar 13 on 24 June. Well done, Martin! Many old hands haven't worked out of the RSA yet.

Anton Matthee ZS2AAY, a student at Stellenbosch but loafing in PE until 17 July, is doing his thesis on Packet Radio, developing a South African version of the Poor Man's Packet which has caught the imagination locally lately. Good luck, Anton, we look forward to developments.

What a turnout at our last monthly meeting! No fewer than 53 interested and enthusiastic people filled our meeting place. Now, we're used to the usual 40 or more members attending regularly, but this was heartwarming. As *they* so often say, "WE MUST BE DOING SOMETHING RIGHT!" Incidentally, even our *average* turnout represents virtually 25% of our total membership. Last month's was almost 30%. A minimum of only 10% is required to form a quorum in terms of the Constitution, and some branches even have difficulty complying with this, believe it or not! Some time, maybe, I'll tell you how you can get around the Constitution to have a meeting with only *five* members present!

Trevor ZS2AE, our repeater repairman, has fitted two filters to the Grahamstown repeater (145,150/750) and upped its output by several watts. It now sounds a lot better. Thanks again, Trevor and all who gave a hand.

Mike Bentley ZU1MBM has been hard at work educating the educators! Thanks to his initiative, **Alexander Road High School** has granted permission for Novice classes to be run on the premises, and for a Radio Club to be established there next year. Mike's own school, **Westering High**, has just been allocated a call sign **ZU1WHS** for use by *its* newly formed radio club. Congrats, Mike, and thank you, Westering and 'Alex' for your progressive approach in encouraging Ham Radio.

How did you do in the Hamnet Simulated Emergency contest? If you haven't already done so, get your log in soon. Contact Al ZS2U for help if you don't have the scoring rules. Phil ZS2PP carted his QRP rig all the way up to the Bathurst troposcope and had a lot of fun.

Iris ZS2AA had a nasty experience recently. While sitting in her car, holding a baby as the mother popped out to attend to some business, a 'gentleman' pulled open the door and grabbed her handbag. In trying vainly to hang onto it, Iris' finger was injured but fortunately she suffered no worse injuries. The handbag contained several hundred rand and documents. *SK*

★ ★ PERSONAL NEWS ★ ★

Condolences: We learned with regret of the passing of OM Ben Crouse ZS2NC on Sunday morning, 21 June 1992 a few days after his admission to hospital, and of the sudden passing of the son-in-law of Stan and Evelyn Geer ZS2KV. We extend our sympathy to the families and friends.

Congratulations ... to our members, members' spouses and other friends who will be celebrating in the coming weeks:

Birthdays - July: Bill Browne ZS2BY (19th), Vic Olivier ZS2S2 (20th), Beavan Gwilt ZS2RL (22nd), Ruth Bodmer (ZR1WB) (25th), Walter Bodmer ZR1WB (29th), Des Pettit ZR2ABI (29th). **August:** Mandy Masters (ZS2AAN) (1st), Louisa Taljaard (ZR2CS) (3rd), Avril Guthrie ZS2NU (5th), Ben Schilder ZR2ABE (11th), John Watson ZS2KD (11th), Trevor Elliott ZS2TJ (12th), Marc Schaefer ZS2-278 (14th), Annamarie Barnard (ZR2DY) (15th), Sandra Bothma (ZS2B) (17th), Al Akers ZS2U (18th), Charles Thwaites ZS6BUC (19th), Piet Fourie ZS2FP (20th).

Anniversaries - August: Shirley and Tom Cockbain ZS2TC (5th), Annamarie and Attie Barnard ZR2DY (9th), Ria and Paul de Vos ZR2ABM (20th).

... to **New Call Sign Owners** Gary Gillmer ZR2LG, Eddie Tunnbridge ZR2EKT, Jako Breytenbach ZR2AAO, Neil Davies ZR2ABR, Joseph Jasson ZR2JLJ and Andries van Wyk ZR2AVW.

... to **Successful Candidates** Robert Bosch (son of Mike ZS2FM), Marc Schaefer and Darryn Udemans, who have decided not to bother with ZR call signs but go straight for ZS; to David Butcher ZU1AAW and Michael Bentley ZU1MBM, who also passed the May Class A exams but, like Robert, Marc and Darryn, have to wait for their 16th birthdays for call signs; and to Craig Knottenbelt, Clayton Codd and Lawrence Leeuwin who passed their Novice RAE's. Good luck with the CW, chaps.

New Members: Welcome to Glenn Kraut S83X of Coffee Bay, Transkei, who has upgraded to the Premier Branch. Glenn has listened to our bulletins for many moons. Also hearty welcome to Joseph Jasson ZR2JLJ, Andries van Wyk ZR2AVW and Brady Ridgway (no call sign reported yet). We know you will all enjoy your stay with us in the Premier Branch. We are certainly happy to have your support.

Loafers' Club: Jim van Loggerenberg ZS2LR has joined the Venerable Order of fulltime loafers. Now he can sneak into his shack while son Donovan ZS2DL is away.

SK

PORT ELIZABETH BRANCH COMMITTEE

CHAIRMAN & PUBLICITY	Marge Weller	ZS2OB	31-1639
VICE CHAIRMAN, TREASURER	Colin Robertson	ZS2CTR	30-0570
SECRETARY	Fred Bonthuys	ZS2EQ	63-3804
SPECIAL EVENTS, CONTESTS, HAMNET	Al Akers	ZS2U	30-2983
AWARDS, RALLIES	Bud Voortman	ZS2CA	34-2770
PROJECTS, TRAINING & QSX COMMITTEE	Viv Moore	ZS2YM	30-4433
EDITOR: QSX-PE	Garth Laaks	ZS2HB	38-1101
LIBRARIAN, DF HUNTS, IPHA	Vic Olivier	ZS2SZ	30-2440
SOCIAL, GUEST SPEAKERS	Owen Thomas	ZS2AZ	54-2177

DIGITAL TECHNICAL LIAISON	Lionel Coombe- Davis	ZS2DD	32-1770
REPEATER WORKING GROUP CO-ORDINATOR	Trevor Scarr	ZS2AE	32-1746

BULLETIN ROSTER

Compiler/readers and 2m net controllers are listed in QSX.

SUNDAY BULLETINS

Bulletins are transmitted on Sundays at about 08:40
(after the Headquarters bulletin) on -
7,098 MHz (40 metre band SSB)
145,700 MHz (2 metre band FM - Lady's Slipper)
51,400 MHz (automatic link with 2 m Lady's Slipper)
14,130 MHz (20 metres SSB) when conditions require.

BRANCH VHF & HF SERVICES

Town Repeater (PE Central)	145,050	/	145,650 MHz
Grahamstown Repeater	145,150	/	145,750 MHz
Lady's Slipper Repeater	145,100	/	145,700 MHz
6 metre link with Lady's Slipper	51,400 MHz		(simplex)
Cockscomb Repeater	145,000	/	145,600 MHz
Kareedouw Repeater	145,125	/	145,725 MHz
University Repeater	145,175	/	145,775 MHz
6 metre beacon (ZS2SIX CW ID)	50,005		MHz
2 metre beacon (ZS2PE CW ID)	144,910		MHz
Packet Bulletin Board	ZU8KCD -		144,675 & 14,109 MHz, KAM Version 3.0 software

BRANCH MEETINGS

20:15 (8.15pm) on the third Friday of the month in the
Civil Defence Centre, Westview Drive, Mill Park

**** We like being your branch ****