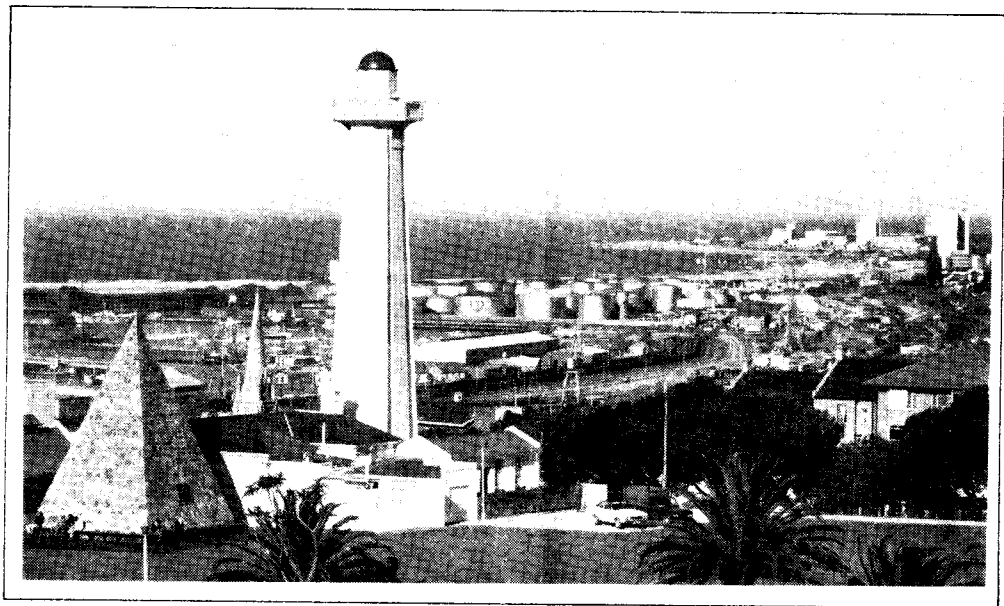




Q S X
P E



**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

10 - 9 1

NOTICE OF MEETING

The October monthly general meeting of the Branch will start at 20:15 on Friday, 18th October 1991 at the

Civil Defence Centre
Westview Drive
Mill Park

situated where Westview Drive forks southwards out of Cape Road about 100m west of the intersection of Cape Road, Mount Road and Mill Park Road.

At this stage nothing definite has been decided about the events after the tea break but, judging from the way the AGM went, members are dying to just stand around and gas with their common-interest friends. Perhaps we should do that more often.

By the way, 'they' have made it easier to get your car onto the property from Westview Drive but at the AGM I discovered, with a sinking feeling, that there was quite a sizeable hole where I attempted to park.

Such hazards apart, the CD Centre is now our regular gathering-place. Members and visitors alike are welcome to drop in whenever we meet.

ZS1AW : Ham Radio Loses a Stalwart

It was with deep regret that we learned of the passing of OM Koos van der Merwe, ZS1AW, earlier this month.

Koos was President of the SA Radio League from 1975 to 1978 but, more important, he was one of Amateur Radio's real gentlemen, a kindly person who possibly did more for our hobby, the League and its members than any other ham in South Africa.

Apart from his duties on Committee and Council, he offered up a great deal of his time to the day-to-day running of Headquarters over a period of many years, completely voluntarily and without thought of any reward. It always seemed that not enough fuss was made of this fact, his praises were not sung loudly enough, when, with the transfer of Headquarters to the Reef, Koos' services to Headquarters were made redundant.

With Koos' passing, we have all lost a dear friend, an impeccable example of friendliness, helpfulness, openness and integrity of the highest order carried over from the good old days of Ham Radio; qualities that are worthy of emulation by all who hold the reins of office in any organisation.

May he rest in peace.

His XYL Annie ZS1AZ has not only always supported Koos but also in her own right, in various roles and over many years, provided valuable service to the League and its members. To Annie we offer our sincere, heartfelt sympathy. Her loss is also our loss.

**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, 1991-08-16**

PRESENT: 32 members and visitors

APOLOGIES: As per attendance register

WELCOME:

The Chairman welcomed all to the meeting. A special welcome was extended to Trevor and Julie Scarr back from their overseas holiday, and to Steve ZS2WS and Ginger from the SABC.

MINUTES OF THE PREVIOUS MEETING:

The minutes of the meeting held on 1991.07.12 having been circulated in QSX-PE were taken as read. Their adoption was proposed by Joan ZR2ABA and seconded by Bill ZR2AAN.

MATTERS ARISING:

Marge advised that the trophies for the Branch Simulated Emergency Contest were being engraved and thereafter would be despatched to the contest winners.

FINANCE:

Colin reported that the Branch funds stood at R5 179,34. The 1994 AGM Fund stood at R763,50.

The Lucky Numbers draw was won by Alan ZR2BL.

CORRESPONDENCE:

A letter from Headquarters regarding new regulations pertaining to unattended Packet Radio Stations had been received. Lionel ZS2DD said that the matter was already in hand.

Marge read out an interesting editorial regarding League affairs from "CQ NEWS", the newsletter of the Durban Branch.

GENERAL:

The Chairman expressed her appreciation to Al ZS2U and Bud ZS2CA for arranging the new venue for Branch meetings. Bud mentioned that the Civil Defence group was agreeable to the Branch library and equipment being housed at the Centre.

Minutes of Meeting (cont'd)

Wolf ZS2WG reported on the forthcoming Field Day. The use of a caravan had so far not been secured, and if necessary one would be hired. A list of operators to assist at the event would be circulated during the meeting.

Bud drew the attention of the meeting to outstanding additional claims from members for the Algoa Motor Rally. Participating members had been overpaid R5,00 by the Rally Committee for each stage they had manned. He requested that these amounts be returned to the Branch.

It was confirmed that the Branch Annual General Meeting would be held on Friday 1991.09.20 at 19:00 at the Civil Defence Centre, Mill Park. The Branch would provide wine and snacks.

Bud reminded those present of the forthcoming Branch QSO Party. This had received good publicity in "Radio ZS", and he requested members to please participate in the event.

The meeting was then adjourned for tea, after which Steve Williams, ZS2WS, assisted by his boss, Ginger, of the SABC, presented a very interesting talk on interference, followed up with a fascinating demonstration of some very sophisticated equipment to measure the effectiveness of RF filters.

CLOSURE:

There being no further business to discuss, the meeting closed at 22:45.

CHAIRMAN

SECRETARY

JOTA : CAN YOU HELP?

The 1991 Jamboree on the Air is all set to take place over the weekend 19/20 October. Dick Schonborn, ZS2RS, will be running the event and would still like to hear from those who can help with the erection and operation. Please let him know as soon as possible if you can be of assistance. Get him on Tel. 55-2107 (office hours) or 55-2244 (home).

BRANCH AGM A RESOUNDING SUCCESS

The Branch AGM was held on 20 September at the Civil Defence Centre in Mill Park. One member was so enthusiastic that he actually arrived at 17:00, only to find that the meeting was due to start at 19:00. A contributory factor may have been the 'computer error' that gave the starting time as "17:00" in one of the QSX-PE items about the AGM.

To reward Owen for his enthusiasm, he was elected to the Committee for the ensuing year.

Marge ZS2DB was unanimously re-elected to serve her fourth consecutive term as Chairman (a ZS YL record, I suspect) and the rest of the previous committee were also re-elected except for Lionel ZS2DD and Lynne ZS2MM, both of whom did not wish to stand for re-election. Their places were taken by Owen ZS2AZ and Fred ZS2EQ. The portfolios of the various Committee members are reflected on the back cover of QSX.

Branch Trophies were presented/awarded as follows:

ZS2AB Constructors' Trophy: Phil Hopper ZS2PP

Ham Spirit Trophy: Viv Moore ZS2VM

DF Hunt Trophy: Colin Robertson ZS2CTR

VHF Trophy: Hannes ZS2BE, who unfortunately could not be present to accept it in person.

Special certificates of 'merit' were also presented to Gerhard ZS2UM for his oratorical prowess (holding an 'over' non-stop for no less than 28 minutes) and Bud ZS2CA who, during a DF hunt, allegedly traced the 'fox' to some point east of the harbour mouth.

The meeting was also hugely successful on the social side, but that's true of every gathering under the PE Branch banner. Before and after the meeting, all present had a ball of a time - and, of course, there was the usual quota of rowdies doing their thing during the meeting as well.

It was good to see some of our out-of-town friends and even some local people who we don't see as often as we'd like to.

If you weren't there, you missed a pleasant evening. But don't wait until the next AGM - join us at the monthly meetings.

PACKET SAGA EASING?

During the Packet Indaba on the air on 28 September various points of dissatisfaction were confirmed. It was decided to disband the Packet Working Group and form a new, properly representative committee which will look at the whole question of Packet Bulletin Board and Digipeater licensing afresh and present new recommendations. To this end, SYSOPS and nominees of the branches will hold another indaba soon. Colin ZS2CTR is the PE Branch representative.

An AX25 Users Group has also been formed in PE to look after digital operating matters. More news on this later.

OVERVOLTAGE PROTECTION

Inexpensive low-voltage power supplies often suffer from regulator failure resulting in a somewhat higher voltage being delivered than that which the unit was designed to provide. This can damage equipment connected to it.

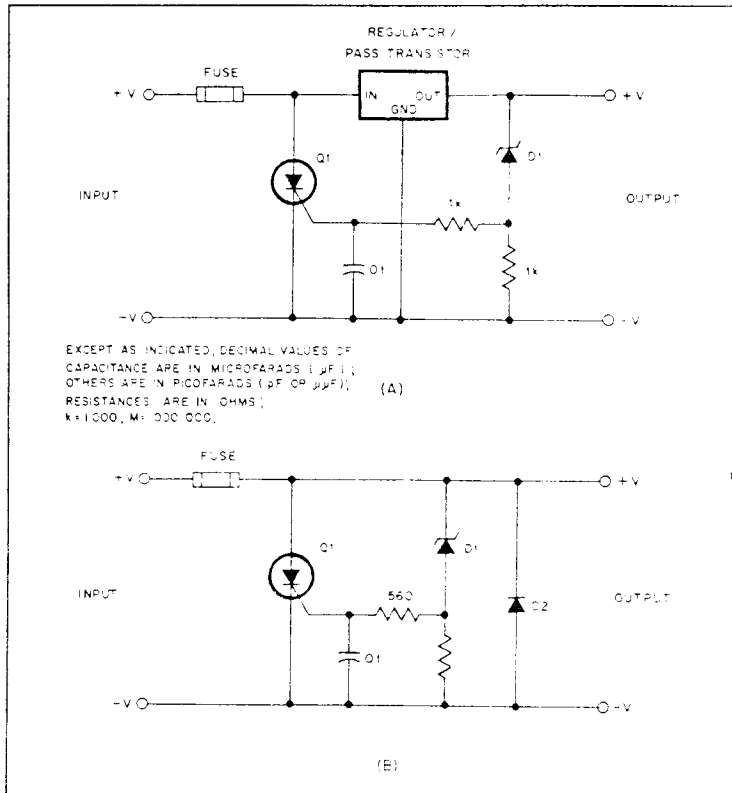
The 'crowbar' circuits shown here are designed to protect your equipment from accidental overvoltage. When such a condition occurs, the Zener diode conducts and forward-biases the SCR into full conduction. This effectively short-circuits the power supply via the fuse, which blows.

Two crowbar circuits are shown in the adjacent diagrams.

That at A is designed to be built around the regulator/pass transistor circuitry of a power supply.

B shows a crowbar intended for installation inside your equipment. This circuit also provides reverse-voltage protection through the addition of D2. This will conduct if reverse polarity is applied to your equipment, blowing the fuse.

NOTE - Be aware that the crowbar circuit offers protection against prolonged exposure to over-voltage only. The output voltage will, in fact, continue to rise beyond its rated level for a few milliseconds before the SCR causes the fuse to blow.



EXCEPT AS INDICATED, DECIMAL VALUES OF CAPACITANCE ARE IN MICROFARADS (μF); OTHERS ARE IN PICOFARADS (pF OR μμF); RESISTANCES ARE IN OHMS; K=1,000, M=1,000,000.

Fig 15—Schematic diagrams of two crowbar circuits. Capacitors are 25-V, disc ceramic. Resistors are 1/2-watt carbon-composition types. Part numbers in parentheses are Radio Shack: D1—Zener diode, 15 V (276-1067). Q1—Silicon-controlled rectifier, 25 A, 200 PIV (276-1101). D2—Silicon power diode, 1 A, 50 PIV (276-1067).

Everyman's Law— Spend all your money now. If you save it up for a rainy day, it won't be worth enough, at the present rate of inflation, to buy an umbrella.

CIRCUITS FOR YOUR SCRAPBOOK

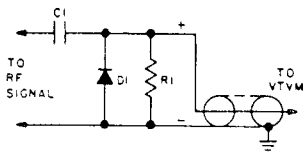
RF Probe for VTVM

Three components are all that's needed to make a VTVM measure RF voltage up to 200 MHz (depending on the diode used). The probe should be built in a metal can with shielded wire for the connecting lead to the VTVM. Connect the shielded wire to the metal can and solder if possible.

The diode rectifies the RF voltage, while the capacity of the shielded ca-

PARTS LIST FOR RF PROBE FOR VTVM

- C1—50-pF disc capacitor
- D1—1N60, Calectro K4-550 diode
- R1—20-megohm, 1/2-watt resistor



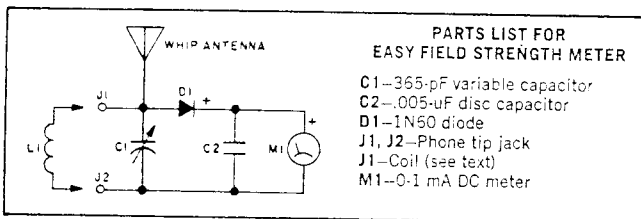
ble provides filtering. The output of the probe is positive, with the VTVM indicating the peak value of the RF waveform. To determine the RMS value, multiply the VTVM reading by 0.707. The maximum RF

voltage that can be applied is limited by the diode. A 1N60 is limited to 30V peak RF voltage. For higher voltage-handling capacity, substitute a higher voltage small signal detector diode.

Easy Field Strength Meter

High sensitivity without amplification is obtained when a field strength meter (FSM) is tuned to its operating frequency. With a *pn*-type miniature capacitor for C1, the FSM can be built in a pocket-size cabinet.

Tuning range is from 1.5 to 144 MHz, depending on the choice of coil L1. The coil can use phone tip jacks for a plug-in connection for band changing. Consult any coil table for L1's winding data since coil construction depends on the type of



PARTS LIST FOR EASY FIELD STRENGTH METER

- C1—365-pF variable capacitor
- C2—.005- μ F disc capacitor
- D1—1N60 diode
- J1, J2—Phone tip jack
- J1, J2—Coil (see text)
- M1—0-1 mA DC meter

wire and frequency.

Even greater sensitivity is obtained if a more sensitive meter is used.

A 50- μ A meter, M1, provides maximum sensitivity combined with reasonably rugged construction.

Transistorized FSM

Ordinary field strength meters usually require several watts to get a usable reading, but you need high sensitivity to get detectable readings from low-power oscillators, QRP transmitters etc. This simple, amplified FSM has a sensitivity of 150 to 300 times that of ordinary models. It indicates full scale when other meters don't budge off the pin.

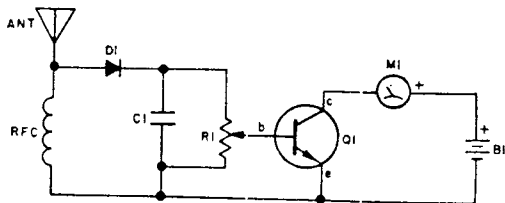
The dependable frequency range is approximately 3 to 30 MHz. A metal enclosure is recommended, with a

stiff wire antenna about 15 cm long. For compactness, RFC should be a miniature 2.5 mH choke. Any high-gain NPN small-signal transistor (such as a BC107) can be used for Q1.

To operate the unit, reset the sensitivity control R1 periodically so as to keep the needle within 1/3 to 3/4 of full-scale as you make transmitter adjustments. Avoid working too close to the top of the scale since it can saturate transistor Q1, producing erroneous readings.

PARTS LIST FOR TRANSISTORIZED FSM

- B1—1.5-V AA battery
- C1—0.001- μ F disc capacitor
- D1—1N60, Calectro K4-550 diode
- M1—0-1 mA DC meter
- Q1—npn transistor
- R1—50,000-ohm potentiometer
- RFC—2.5-mH choke



This 'n That

You may have wondered why, in spite of various changes in recent months (e.g. our new venue, the resurrection of the PBBS system and Lynne's resignation as Secretary) the back cover of this newsletter was not updated immediately. The reason is that, to reduce production costs, our Printers prepare a six-month supply of the outside sheet (the front and back covers, which normally remain static) in one run. Amendments are therefore made only when a fresh supply is required.

At the AGM it was decided in principle to erect a digipeater at Grahamstown. This should greatly widen the horizons of Eastern Cape digital-mode operators. More details will come later.

Lionel ZS2DD has been appointed as the representative of SA AMSAT in the Eastern Cape, while Al ZS2U is the official PE Branch representative for HAMNET. Al is also the Eastern Cape Divisional representative appointed by HAMNET.

Seems that our source regarding the change in Marge and Brian's telephone numbers after their QSY to new residential and business premises had it wrong. Brian will be retaining his business telephone number 35-3935, while that of Marge has already changed to 311-639. As we went to press, their after-hours number was still 30-3498, but don't take my word for it. Dial it and see if you know the bod who answers.

Remember the HQ bulletin 20m frequency change from the former 14150 KHz to 14282 KHz with effect from 13 October.

ZS2PE made 481 contacts in 78 countries during the SARL Field Day contest last month, scoring 116 376 points. Al ZS2U and his band of helpers contacted 231 stations in 57 countries netting 40 000 odd points. Well done, all those who helped with these stations. We didn't hear of any other RSA stations with numbers anywhere near that of ZS2PE so the Branch should be mentioned in dispatches again this year.

The country-wide VHF FM QSO Party initiated by PE members seems to have really got everyone in a tizzy and there have been several long-distance contacts between PE, the Cape, Natal and Transvaal on this mode. However a (perhaps more important) spin-off of all this activity was the making of DX contacts, albeit on modes other than FM, on six metres. Al spoke to an FC station (Corsica or perhaps mainland France) on SSB and with ZA1A in Albania on CW. Albania has long been a sought-after country on HF, let alone working it on 6 metres. Well done, Al.

*** HAMADS * HAMADS * HAMADS ***

BARLOW-WADLEY RECEIVER What offers? - Contact Nigel Fitt, 12 Newton Abbot, Frank Street, Newton Park. Tel. 35-5162

OUR A.G.M-'94 FUND

Contributions to the fund amount to R898,50 at present.

This fund has been established to cover costs related to holding the 1994 SARL AGM in Port Elizabeth. We want to make this a memorable AGM for all members of the League. Because travelling and accommodation costs have rocketed in recent years, attending AGMs has regrettably become a luxury beyond the pockets of most members. The very people who foot the bill for the running of the League are therefore priced out of attending the most important business and social event on their League's calendar.

We would like to change this by providing as many as possible of the AGM events at no additional cost to attendees, or at least to subsidise them. Donations, small or large, in a lump sum or convenient monthly contributions, would be appreciated. Let's show them how it's done in the Friendly City!

BELIEVE IT OR NOT

The following item is taken from October 1988 'Break-In', published by the New Zealand Association of Radio Transmitters, and quotes from Zimbabwe's 'Harare Herald':

"A strange source of TV and FM radio reception interference was traced to the shoes worn by viewers and listeners!

"The problem is confined to some shoes made during the past two years using hides from cattle and elephant that came from drought-stricken areas. Because of the lack of grass, the animals were forced to eat a certain type of weed that contained a large concentration of aluminium salts.

"Acting as tiny transistors, the components of the contaminated hides interacted and set up static discharges on shoes that were worn in dry carpeted rooms. Viewers and listeners were forced to move their feet to stop the interference."

(Like I always say, avoid RFI and TVI - run barefoot! - Ed.)

PE BRANCH IS GROWING

At the latest count, the Port Elizabeth Branch has the support of 166 members. This figure includes an also-growing Social membership attracted to the Branch by its lively vitality.

Viv is already talking of next year's RAE classes and of approaching schools with a view to enrolling more young people - the future life-blood of the League. You can do your bit too, by talking to anyone likely to have an interest in radio or its allied fields of electronics and computers. Let's see how soon we can break the 200 barrier.

Ten Commandments for Technicians

1. Beware the lightning that lurketh in the undischarged capacitor, lest it cause thee to bounce upon thy buttocks in a most untechnician-like manner.
2. Cause thou the switch that supplieth large quantities of juice to be opened and thusly tagged, that thy days in this earthly vale of tears be long.
3. Prove to thyself that all circuits that radiateth and upon which thou worketh are grounded and thusly tagged lest they lift thee to radio frequency potential and causeth thee to make like a radiator too.
4. Carry thou not amongst those fools who engage in intentional shocks for they are surely non-believers and are not long for this world.
5. Take care that thou useth the proper method when thou takest the measure of a high voltage circuit lest thou incinerate both thyself and thy meter.
6. Take care that thou tampereth not with interlocks and safety devices, for this incurbeth the wrath of the supervisor and bringeth the fury of the safety inspector upon thy head and shoulders.
7. Work thou not on energized equipment, for if thou so dost, will thy fellow workers surely buy beers for thy widow and console her in other ways.
8. Service thou not equipment alone, for electrical cooking is a slothful process and thy might sizzle in thy own fat for hours upon a hot circuit before thy Maker see-eth fit to end thy misery.
9. Trifle thou not with radioactive tubes and substances lest thou commence to glow in the dark like a lightning bug and thy wife have no further use for thee except thy wages.
10. Causeth thou to be tagged all modifications made by thee upon equipment, lest thy successor tear his hair and go slowly mad in his attempt to decide what manner of creature hath made a nest in the wiring of such equipment.



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Congratulations to the following members who will be celebrating shortly:

Birthdays - October: Neil Holmes ZS2AI (23rd); Kathy Gerstle (ZS2W6) (24th); Stoffel Carr ZS2C (26th); Doris Thomas ZS2TL (28th); Noel Staples ZS2AAS (29th).
November: Ian Mackenzie ZS2-162 (2nd); Viv Moore ZS2VM (6th); Dot Clarke (ZS2MF) (14th).

Anniversaries - October: Jo ZS2W and Al Akers ZS2U (24th). November: Dot and Ron Clarke ZS2MF (3rd).

Get Well Wishes to Peter ZS2PL, who suffered a heart attack in mid-August. Glad to know you're well on the mend, Peter. We missed you at the AGM. Take care.

Welcome back... to Lynne ZS2MM, who has returned after a two-month visit to Europe. She had a grand time and spent a while with Owen, ex ZS2HZ, and Tina. Her luggage on the trip home weighed more than she did, but that's not surprising, is it?

Good Luck... to those writing the Amateur Radio Examination next month. We await the outcome with bated breath.

News From the Past

From QST, February 1945:

"Letters from South Africa send us the names and addresses of clubs and amateurs who have entertained or are anxious to meet fellow hams from across the Atlantic and we list them below:

... S.W. van der Merwe ZS2Y Hon. Sec'y, Port Elizabeth Radio Assn., care Hubert Davies & Co...; R. Bosman ZS2X, care General Motors Frigidaire Dept. ..."

From the Daily Dispatch, East London, 15-4-1955:

"Mr and Mrs J. Drayton, Mr and Mrs J.J. Smuts and Mrs E. Reifenberg left East London during the week to attend the annual general meeting of the South African Radio League in Port Elizabeth. Mr Drayton was the East London Branch delegate and Mr Smuts was his deputy."

(Jack Drayton is ZS2CI, Tiny Smuts is ZS2GN and Edith Reifenberg was ZS2CM, having acquired her late OM Hans' call sign. She later returned to Germany.)

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	ZS2VM	30-4433
EDITOR: QSX-PE	Garth Laaks	ZS2HB	38-1101
LIBRARIAN, DF HUNTS, IPHA	Yic 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

* Marge: 30-4597 for the time being

BULLETIN ROSTER

Bulletin readers please refer to your roster sheet.

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	145,075 / 145,675 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	ZUSKCD - 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 ****