

**Q S X**  
**P E**

*Port Elizabeth Branch of the  
South African Radio League*

**P.O.Box 462, Port Elizabeth. 6000.**



National Call	145.5 Mhz
P.E. Repeater	145.05/65
Grahamstown	145.15/75
Lady's Slipper	145.10/70

**ZS2PE**

**Bulletin: Sunday 08h40**  
**HF: 40m — 7098 KHz**  
**VHF: FM-145,700 MHz**

JANUARY 1986

# Port Elizabeth Branch

## > NOTICE OF MONTHLY MEETING <

MEMBERS ARE REMINDED THAT THE MONTHLY GENERAL MEETING OF THE BRANCH WILL TAKE PLACE AT THE SCOUT HALL, CORNER OF RITCHIE CRESCENT AND VAN NIEUWENBERG STREET, KABEGA PARK ON FRIDAY 17TH JANUARY, 1936, AT 8.15 P.M. THIS IS THE FIRST MEETING OF THE YEAR AND WE WOULD LOVE TO SEE YOU ALL THERE. WE ALSO HOPE TO HAVE A GUEST SPEAKER.

+++++

## Committee

CHAIRMAN:	Brian ZS2AB	303498	VICE CHAIRMAN:	Lionel ZS2DD	304770
SECRETARY:	Marge ZS2OB	303498	TREASURER:	Dick ZS2RS	302111
AWARDS:	Gordon ZS2GK	306776	MEMBER	Trevor ZS2AE	304746
	QXK- PE:	ZS2OB and ZS2AB.			

In view of the fact that Gordon ZS2GK has been transferred to Pretoria it will be necessary to find another member to take his place on the Committee. We would like to take this opportunity to thank Gordon and Joan for all their hard and unsparing work and wish them a safe trip and hope they settle down well in their new home. Keep in touch with us, please Gordon and Joan. If anyone would like to take the vacant position, please let Brian ZS2AB know.

+++++

## bulletin roster



26th January	Brian ZS2AB
2nd February	Lionel ZS2DD
9th February	Marge ZS2OB
16th February	Dick ZS2RS
23rd February	Trevor ZS2AE

+++++

## Daily Dispatch.

## AMATEUR RADIO.

MONDAY, JULY 27, 1936.

Great Day for Listeners.

CAPE TOWN, Sunday. (Reuter) - As far as listeners in the suburbs of Cape Town were concerned, Senator Clarkson's address from Durban to the radio experts was unfortunately heavily jammed by Morse signals. Conditions here were very bad with a great deal of fading. The Minister's reply to the Minister, however, was perfectly clear. The Minister, Senator Clarkson and the Post Office and his account of the doings of the Radio League were very clearly heard, as well as his interesting announcement of what radio amateurs were able to do in co-operation with the Post Office in case of war or emergency.

East London's greetings to the Minister and from Mossel Bay were clear with a good deal of fading.

On the whole, the request to radio listeners to keep silence during this radio ceremony was well observed until about ten o'clock, when apparently of Mossel Bay and Bloemfontein had no effect and there was a regular radio rugby scrum on the air. It was a splendid and interesting experiment and a great day for radio amateurs.

(This article appeared in the Daily Despatch of East London, dated Monday 27 July 1936. Sometimes it seems as if the rugby scrum hasn't disappeared yet! Many thanks to Lionel ZS2DD and his daughter Clare for this article.)

# THIS and THAT

HELLO



NEW  
HAMS

Heartiest congratulations to John Masters who was successful in passing the November P.M.G. exam and also to Brin Archer who also passed the P.M.G. exam and succeeded in passing his Matric at the same time. Brin will be studying for an Electronics degree at U.C.T. this year. We wish you much success.

**CONGRATS** We really have some tip-tip Branch members! Out of the list of those who did well in the Code Proficiency Award, seven were members of P.E. Branch and we congratulate Garth ZS2HE and Percy ZS2RM for 35 WPM; Charles ZS2PA for 25 WPM; Hugh ZS2RB and Barry ZS2DT for 20 WPM and Rudy ZS2EE and Beaven ZS2RL for 15 WPM. Well done!

Congratulations are also extended to Werner ZR2CY and Rene Ahlers of Uitenhage on the recent engagement of their son and to Waldie ZS2WM and Margaret Bartie on the engagement of their daughter.

**BULLETIN** For several weeks, the Sunday morning Branch bulletin has been repeated on a Monday evening at 8 p.m. on 3640 KHz. There have not been too many reporting in but we do know that several people are listening. Members have also been away on holiday, so we are going to give it a further trial for a few weeks to see if it is worthwhile. We would like to provide a service for members and other listeners who are unable to listen on a Sunday morning because of Church commitments and also for those who enjoy a lie-in to recover from their hard activities of the week. Report in on Ladies Slipper if you can't transmit on 3640 KHz!



We take this opportunity to wish all members of the Branch and the League, Council and office staff and all families a very happy, healthy, prosperous and peaceful New Year.

## ELEVEN WAYS TO KILL YOUR BRANCH.

1. Do not go to the meetings.
2. If you go, arrive late.
3. If the weather is good, say: "It is too fine an evening to be sitting cooped up inside"....then watch TV.
4. If the weather is bad, say: "I can't go out on a night like this" ....and then watch TV.
5. If you do attend the meeting, find fault with the work of the Committee and all the others.
6. Never accept an office as it is easier to criticise than to act.
7. Complain loudly if you are not appointed on the Committee, but if you are, do not attend meetings, especially Committee meetings.
8. If asked by the Chairman to give your opinion regarding some important matter, tell him you have nothing to say. Bore the backside of everyone later at the tea break by telling them exactly what should have been said or done.
9. Do nothing more than is absolutely necessary. When other members roll up their sleeves and willingly use their ability to help matters along, howl that the Branch is run by a clique.
10. Having elected your Chairman and Secretary, begin telling them they are a couple of power-mad careerists.
11. When asked to argue for some difficult action, refuse to do so on the grounds that the members are too apathetic.

MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT THE SCOUT HALL, VAN PLETTENBERG STREET, PORT ELIZABETH ON FRIDAY 15th NOVEMBER, 1985.

PRESENT: 32 members and visitors.

APOLOGIES: ZS2BK, RB, RL and ZR2EM, EY, L, OY and BL, and ZS2RS and WM.

The Chairman extended a welcome to all and especially to the ladies. Special mention was made of Fred ZS2BQ whom we hadn't seen for a long time and who had rejoined the Branch; to Cor ZS2CQ, Owen ZS2EZ, Ron Norman who had recently passed the CW test; to John ZS2JR and especially to Van WOPY who was celebrating the 50th anniversary of his Amateur license.

MINUTES: The Minutes of the General Meeting held 18th October, 1984, having been circulated and published in QSX-FE were taken and read, proposed by Bill ZS2BY and seconded by Trevor ZS2RV.

ARISING: (1)The library was operational and members could borrow books.  
(2)The boxes of component were still available for those who wished to look through them, and anything left thereafter would be given to the Scouts.

FINANCE: (1)In view of the absence of the Treasurer there was no report.  
(2)The Branch had been meeting in this hall for one year and a further rent payment was due.  
(3)The question of electricity accounts for the ladies' office arose. Dick had spoken to SAID who were moving into their own but had invited us to join them, and make use of their electricity. The antennae facilities were acceptable but this would be looked at more closely and would of course be on a contract basis.  
(4)The Town repeater was still on its original site, as there had been no clearance yet from SAF. We will move when they have finished moving their equipment.

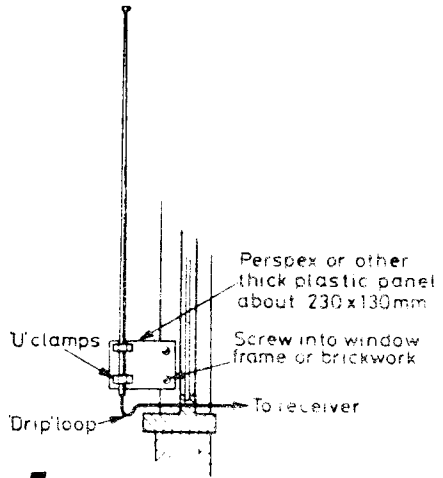
CORRES: Council minutes and several branch newsletters.

GENERAL: (1)The misunderstanding re licenses for the Navex had been cleared up. Garth ZS2RE had substituted the motion for the 1986 AGM. This was seconded by ZS2GK. Thanks were extended to Garth. Bill ZS2RV questioned whether it would be a special license, allowing ZEs to operate, but it was said that the PML would stipulate licensed amateurs, and it was decided that an amendment be made.  
(2)Another donation of a LX4C repeater with VFO and mike had been made by Errol (vandalized) and it was hoped to build up a station that could be loaned to new licensees for their period of operation.  
(3)Norman ZS2RI had donated the top two sections of his 40m tower and this would be used for the Johannesburg repeater which could be repaired. Several members of the Branch offered to help to remove the tower.  
(4)Gordon ZS2GK mentioned that several items of equipment had been stolen from his shack and asked members to be on the lookout for it.  
(5)It was mentioned that the Branch Bulletin would be re-committed on Monday evenings at 8pm. on 2640kHz to enable those who were not able to listen in on Sundays to keep up with the news. There will be an informal call-in afterwards.  
(6)It had been decided not to have a Christmas party this year for several reasons; there were too many functions, prices were too high, and most venues were too booked up. A get-together would be held early in the new year.  
(7)There would be no meeting in December.  
(8)The childrens Christmas Tree Party would be held at the same venue as last year on Saturday 8th December. There would be no charge, but parents would bring the child and a plate of food.  
(9)WBS and Beta tapes were available at very good prices and the money was used to offset the printing costs of QSX-FE.  
(10)The Chairman mentioned that an item in the Council minutes had come to his attention. He felt that the action taken by the President in instructing office staff that no further action be taken regarding H.Q. membership was incorrect as the motion had



# Antenna Basics

For the flat-dweller, often without access to a roof or loft space, the only answer may be a vertical rod aerial 3 or 4m long, made from aluminium or copper tubing. An a.t.u. is essential here to bring the aerial to resonance on the various bands. Being very short this aerial will perform better on the higher frequency bands such as 10 and 15m. A commercial whip aerial, with a base-mounting insulator, of the type intended for mobile use can also be useful in this situation.

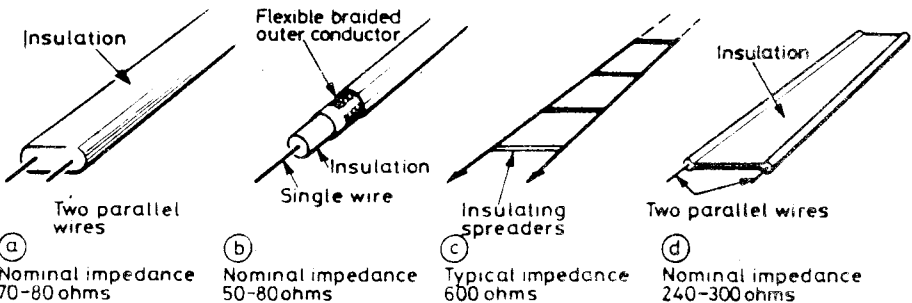


## Rods and Whips

### Feeders

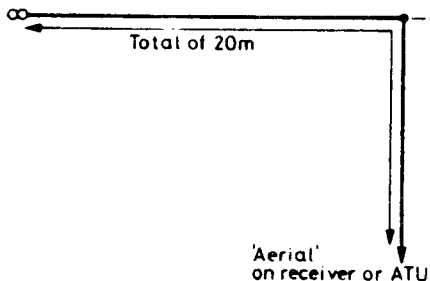
Since the aerial should be located in the clear and generally as high as possible to produce maximum signal strength it is necessary to use a feeder to connect the aerial to the receiver. Low impedance

feeders may be flat twin (a), coaxial (b) or flat ribbon (d). High impedance feeders consist of two wires spaced apart by insulators every foot or so (c).



# Long Wire

A long length of copper wire, with one end connected to the receiver, is probably the most commonly used aerial. For best results it should be erected out of doors. The inverted "L" aerial is a good all-round performer especially if the vertical section can be 7m or more long. If the overall length is around 20m it will function well on the amateur bands without an aerial tuning unit but an a.t.u. will make it even better. The combination of horizontal and vertical polarisation will help with DX signals where the received signal's polarisation can vary considerably from minute to minute.

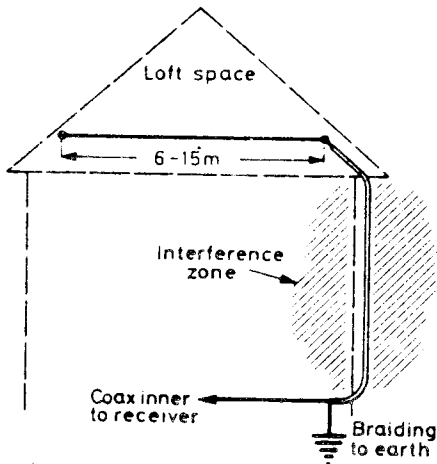


# Indoor Aerials

A long wire aerial can be erected in restricted loft spaces and inside roofs even if it means draping it round the rafters! If electrical noise is a problem then the lower part of the aerial can be a length of coaxial cable with the outer screen connected to the receiver chassis or earth.

A similar aerial can be strung around a room, and even quite a small room will enable a 12 metre length to be used.

One convenient form of aerial can be obtained by using the coaxial cable of a TV aerial, the outer braiding being connected to the aerial socket of the receiver. Important!—disconnect the TV aerial from the TV set before using it in this form.



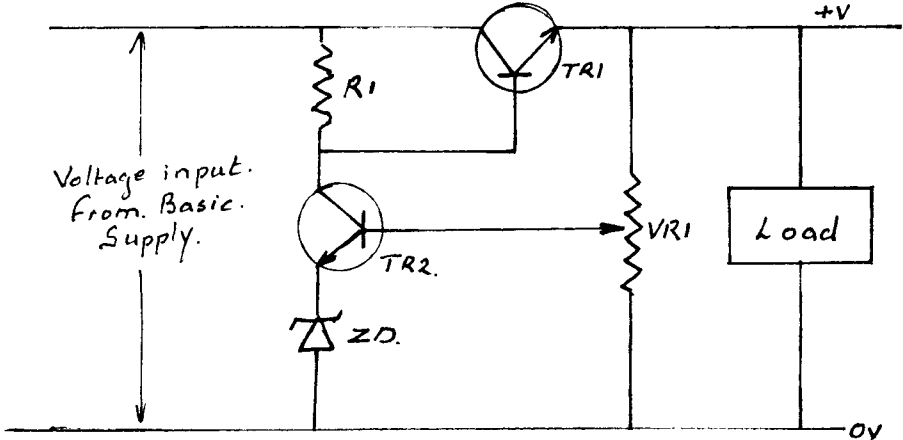
## HOME CONSTRUCTION SUPPLY

(Continuation of article by Viv Moore ZS2VM).

### VARIABLE VOLTAGE POWER SUPPLY

In the first part of this article we talked about a fixed voltage stabilised power supply, which we now extend to a variable voltage supply with a feedback control.

Figure 6



In figure 6 the base voltage of  $TR_1$ , and therefore the output voltage, is controlled by the voltage developed across  $R_1$ . This is due to the current drawn through the resistor by  $TR_2$ .  $TR_2$  in turn is switched on by the voltage applied to its base through  $VR_1$ .

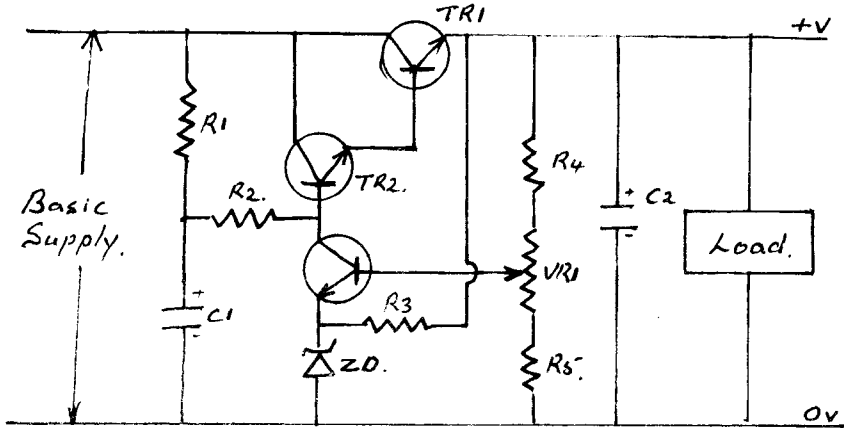
When  $VR_1$  slider is turned to the 0V end,  $TR_2$  will be cut off. As there will be no current flow through  $R_1$  the voltage across it will virtually be nil and  $TR_1$  will be switched hard on. If on the other hand the slider of  $VR_1$  is turned to the +V side,  $TR_2$  will be hard on, there will be maximum current drawn, causing a high voltage across  $R_1$  which will switch  $TR_1$  off.

Looking at the whole circuit, the feedback maintains the output voltage, set by  $VR_1$ . If the output voltage drops because of a high load the voltage on the base of  $TR_2$  will drop causing a reduced current flow through  $R_1$  resulting in a lower voltage drop which in turn sets the base of  $TR_1$  more positive and brings it harder on restoring the output voltage. If the output tends to rise the reverse happens.

So much for the theory, let's look at a practical circuit.



Figure 7



TR1	2N3055	R1	3,9K
TR2	2N3054	R2	470
TR3	2N3053	R3	3,3K
ZD	3,9v	R4	560
C1	50mfd 25v	R5	1,2K
C2	5mfd 25v	VR1	4,7Klin

Mount 2N3055 on a heat sink.

#### What Has Changed?

The resistor R1 from figure 6 has been split into R1 and R2 in figure 7 and a capacitor C1 from the junction to ground is included. TR1 has TR2 added turning it into a super alpha pair. R3 is an addition as well as R4 and R5.

The capacitor C1 is added to reduce the ripple that may be introduced by the basic supply. It couldn't be connected directly to the collector of TR3 because it would dampen any voltage change across the resistor thus affecting the regulation.

The increased gain produced by introducing TR2 improves regulation and ensures that TR1 reaches its full potential.

The resistor R3 increases the current flow through the zener diode to bring it to a more positive regulation point.

Resistors R4 and R5 set the control point to cover the required range and also allow a full swing of the potentiometer making the adjustment less sensitive.

This supply can be comfortably used to 5-6 amps at voltages from about 5v to nearly the basic supply voltage.

The current handling capability can be considerably increased by adding a number of 2N3055's connected in parallel. The collectors are connected together, the bases together but each emitter gets a 0,1 Ohm resistor in series before being connected to the output. Two additional transistors will increase the output to about 15 amps and each further addition will safely add 7 amps. Of course one must ensure that the basic supply is capable of handling the increase.

The circuit should be disconnected at the point indicated in figure 8 and reconnected as shown in figure 9.

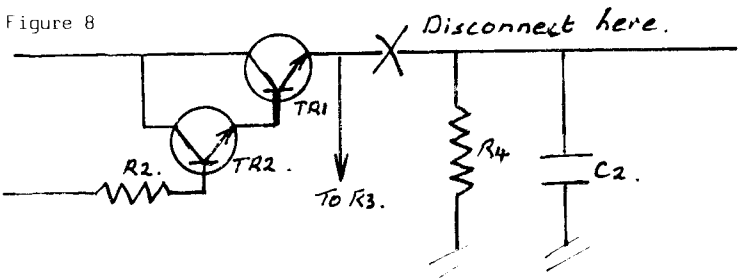
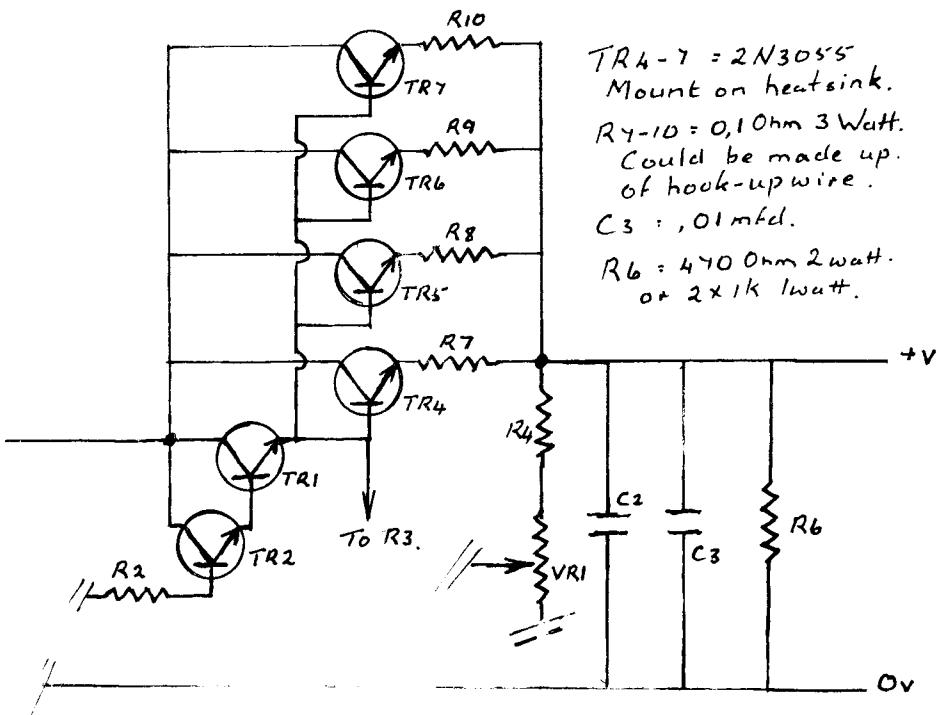


Figure 9



# HALLEY'S COMET

Below is a table of corrected figures for spotting Halley's Comet. John ZS2JR apologises to all those who have been looking in the wrong direction! The figures in the previous table were all right if you were sitting in a boat in the middle of the South Atlantic Ocean. (Thanks, John. We wondered why our feet were getting wet!)

## FIGURES PLOTTED USING MIRRORSOF STAR SEEKER PROGRAM ON COMMODORE 64 HOME COMPUTER.

DATE	DIST. TO	DIST. TO	DEGREES	DEGREES	RIGHT	DECLIN-	RISES		
09.00PM	SUN	EARTH	FROM	FROM	ASCENSION	ATION	BRIGHT-		
S.A.S.T	AST. UNITS	AST. UNIT	NORTH	HORIZON			NESS		SFTS
NOV									
15TH	1.71	.73	49.7	15.1	3h53m	21,54'	8	19.31	05.32
30TH	1.49	.63	356.0	41.9	1h10m	14.40'	7	15.26	02.15
DEC									
15TH	1.26	.84	301.0	32.2	23h14m	3,28'	6	12.01	23.46
30TH	1.03	1.14	277.0	13.5	22h20m	-1,-1'	5	09.54	22.08
JAN									
15TH	.79	1.41	260.0	-4.6	21h46m	-5,-23'	4	08.08	20.40
30TH	.62	1.56	245.0	-19.8	21h20m	-8,-13'	3	06.35	19.23
FEB									
15TH	.60	1.49	223.0	-32.4	20h51m	-12,-6'	3	04.52	18.01
28TH	.72	1.27	202.0	-37.0	20h28m	-16,-9'	3	03.27	16.59
MAR									
15TH	.93	.92	175.0	-32.8	19h57m	-22,-1'	4	01.31	15.51
30TH	1.16	.55	149.0	-9.8	18h36m	-37,-10'	5	22.16	14.28
APR									
3RD	1.22	.48	142.0	-2.7	17h43m	-42,-42'	5	20.36	13.49
7TH	1.28	.43	134.0	19.1	16h20m	-46,-59'	5	18.26	12.42
10TH	1.33	.42	128.0	33.2	15h02m	-47,-14'	5	16.56	11.15
12TH	1.36	.42	123.0	42.8	14h11m	-45,-30'	5	16.09	10.02
15TH	1.41	.45	114.0	56.3	13h06m	-40,-47'	5	15.24	08.15
18TH	1.45	.50	101.0	67.5	12h20m	-35,-10'	6	14.55	06.48
21ST	1.5	.56	78.0	75.6	11h47m	-29,-52'	6	14.33	05.41
24TH	1.54	.63	40.0	79.1	11h24m	-25,-21'	7	14.15	04.50
27TH	1.59	.71	03.0	77.6	11h08m	-21,-39'	7	13.59	02.10
30TH	1.63	.80	342.0	74.0	10h57m	-18,-40'	8	13.45	03.37

### VIDEOTAPE OFFER TO MEMBERS.

=====

DO YOU OWN EITHER A VHS OR BETA VIDEO RECORDER? IF YOU DO, YOU CAN TAKE ADVANTAGE OF OUR SPECIAL MONTHLY OFFER. OUR VERY GENEROUS DONOR MAKES AVAILABLE TO US EACH MONTH, (SUBJECT TO AVAILABILITY OF STOCK), 2 TOP-QUALITY VHS OR BETA THREE-HOUR BLANK VIDEO TAPES WHICH WE SELL AT R15 EACH. ALSO AVAILABLE ARE TWO VHS TAPES OF ANOTHER MAKE WHICH WE SELL AT ONLY R12 EACH. THE PROCEEDS OF THESE SALES GOES TOWARDS FUNDING QSX-PE. CONTACT MARGE ZS20B. STRICTLY FIRST-COME-FIRST-SUPPLIED.

BRANCH TROPHIES: Full details will be given in next month's QSX-PE of the trophies to be awarded by the Branch at the A.G.M. in September. There trophies for home construction, working dx, VHF achievements and a DF trophy. Maybe you would like to work towards winning one of these?



# PETERSEN & SMITHIES

## THE Engine Builders

Specialists in Veteran car engines.

3 HANCOCK STREET, NORTH END

☎ 041-543669/0

ASK FOR LEO SMITHIES

## HENROSE PRODUCTS (PTY) LTD (EDMS) BPK

MANUFACTURERS OF PLASTIC BAGS  
PRODUCERS OF FRUIT JUICES  
"ORANG-U-TANG"  
AND "LEKKA LIKS" FROZEN SUCKERS

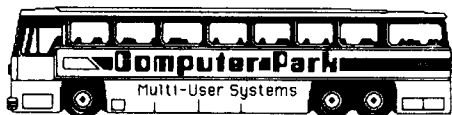
VERVAARDIGERS VAN PLASTIEKSASSE  
VERVAARDIGERS VAN VRUGTE SAPPE  
"ORANG-U-TANG" EN  
"LEKKA LIKS" VERVRIESTE YSBLOKKE

TEL. 546470

5-7 EDGAR LANE

NORTH END

PORT ELIZABETH, 6001



Kine Park Centre, Rink Street, Port Elizabeth  
Phone: (041) 52-1634

## E.P. MUFFLERS



YOUR

**Mr. Khouw**  
EXHAUST FITTING AND PIPE BENDING  
SPECIALISTS.

ALSO:  
TOWBARS  
BATTERIES  
SHOCK  
ABSORBERS



MILD STEEL  
FULLY  
GUARANTEED

STAINLESS  
STEEL  
LIFETIME  
GUARANTEE

54-5420

29 EMBASSY STREET, NORTH END, P.E.

## Neels Mattheus

# tempo

# musik

Suppliers of all musical  
instruments. Sole agents for  
TECHNICS organs and key-  
boards.

PRODUCE THIS AD. FOR A SPECIAL  
DISCOUNT!

Pick 'n Pay Hypermarket/Hipermark,  
Port Elizabeth 6001  
Tel.: 30-6264/30-6069

