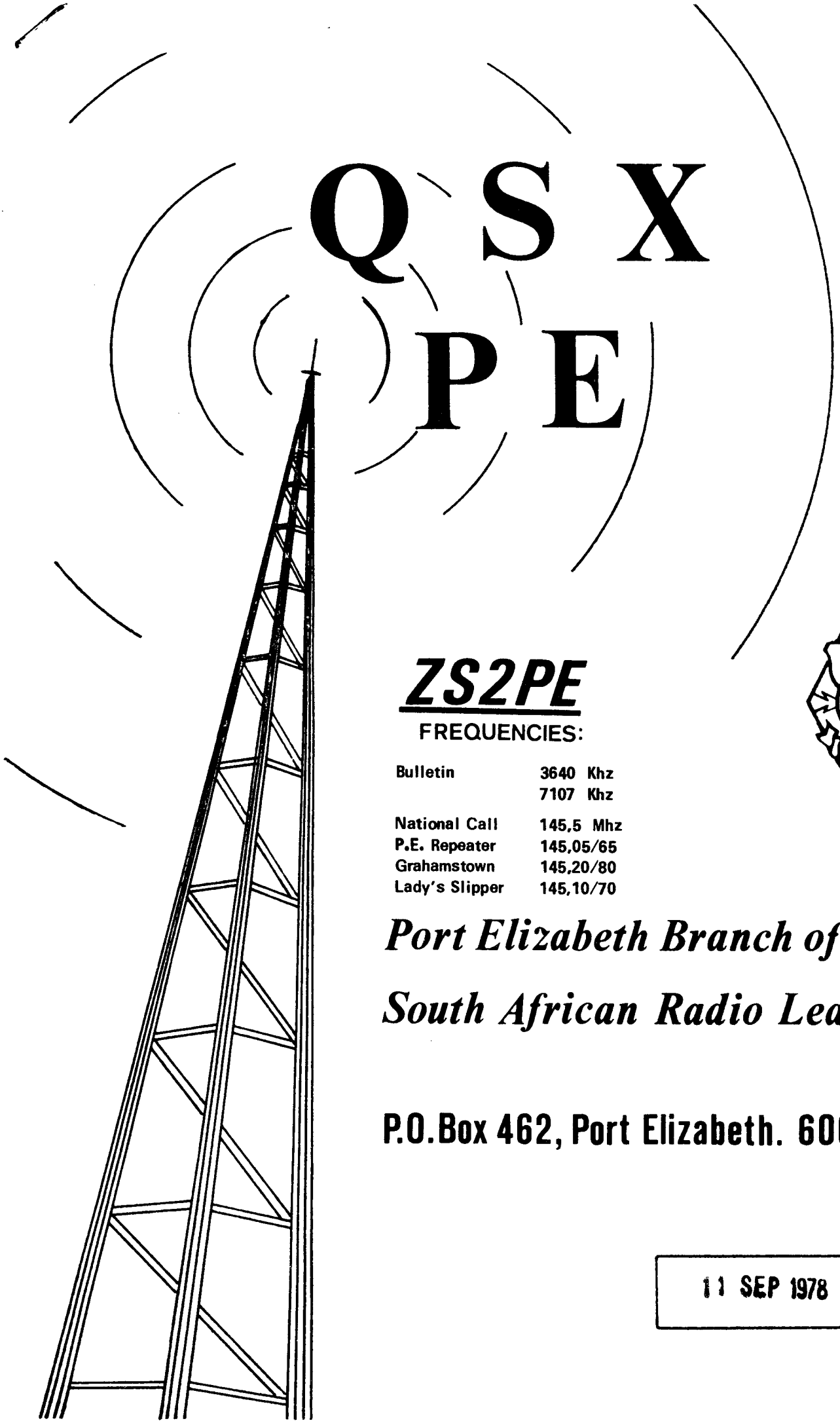
Q S X
P E



ZS2PE

FREQUENCIES:

Bulletin	3640 Khz
	7107 Khz
National Call	145,5 Mhz
P.E. Repeater	145,05/65
Grahamstown	145,20/80
Lady's Slipper	145,10/70

Port Elizabeth Branch of the

South African Radio League

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

11 SEP 1978

MINUTES OF THE ANNUAL GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE S.A.R.L. HELD AT THE YMCA HAVELOCK STREET ON 16th SEPTEMBER 1977 at 2010 HRS.

Present. The Chairman Albert ZS2U welcomed all present. A total of 41 persons attended. A special welcome was extended to Vi ZS2BR, Hans ZR2AX, Roger Jenkins Wilfred ZS2GR, Rory ZR2BB and Laurie Mash.

Apologies. Cliff ZS2AP, Alan ZS2AJ, Darryl ZS2CZ, Isaac ZS2ID and Edgar ZS2CB.

Minutes of the previous Annual General Meeting. These had been published in QSX and Cyril ZS2KX proposed that they be accepted. He was seconded by Frank ZS2CY.

Matters Arising. The treasurer, Frank ZS2CY, pointed out that "quote":- AGM delegates expenses have been completely covered by a cheque from Headquarters. "unquote" was incorrect. The expenses had only been subsidised.

Correspondence.
Letters of proxy received.
Letter of condolence to be sent to Fred Friskin whose father had passed away.

Election of temporary Chairman.
Cyril ZS2KX was called upon to take the chair. This he gladly did. He then called for nominations for Chairman.
Dick ZS2RS was proposed by Brian ZS2GF. Seconded by Vi ZS2BR. He was prepared to stand.
Albert ZS2U was proposed by Dieter. Seconded by Frank ZS2CY. He was not prepared to stand and the nomination was withdrawn.
Dick ZS2RS then took the chair and expressed his thanks for the nomination and to the outgoing Chairman and Committee.
Nominations were then called for to fill the six vacant committee posts.

Lionel ZS2DD	proposed by Brian ZS2AB,	seconded by Brian ZS2GF
Brian ZS2AB	proposed by Betty ZS2LO,	seconded by Vi ZS2BR.
Frank ZS2CY	proposed by Chris ZS2CJ,	seconded by Cyril ZS2KX.
Selwyn ZR2BE	proposed by Chris ZS2AH,	seconded by Cyril ZS2KX.
Barry ZS2BS	proposed by Andre ZS2BK,	seconded by Marge ZS2OB.
Ken Biggs ZS2064	prop by Brian ZS2AB,	seconded by Lionel ZS2DD.
Louie ZS2KT	proposed by Brian ZS2AB,	seconded by Lionel ZS2DD.

The members present were asked to vote by ballot for six of the seven nominees. Even before these votes were counted, it was pointed out by the secretary that this ballot was a farce. One member Brian ZS2AB held nine proxy votes and it was fairly obvious that his nine additional votes would decide who the committee members would be. Bob ZS2BJ felt that this was unconstitutional. This was voted as being legal according to the constitution by Cyril ZS2KX and Frank ZS2CY.
The votes were counted and the new committee announced. There was one spoilt paper.
The committee consisted of, ZS2RS, ZS2DD, ZS2AB, ZS2CY, ZR2BE, ZS2064, ZS2KT.

A break for tea and general rag chew.

B.L. Sherman.ZS2BS (ZR2AT).
Secretary. 1976 to 1977.

A.F.A.Akers. ZS2U.
Chairman. 1976 to 1977.

OM Ken ZS2NO reports that his rig is not loading up too well and would appreciate a little help in this regard. OM Ken is one of our old timers and has difficulty in getting around. His address is 8 Krom Street, Algoa Park.

.....

Colin ZS2AO left last week on an expidition to the U.S.A. Tentative skeds have been arranged with Barry ZS2BS. Further news when available.

No more news as yet from **Andre** ZS2BK who is still in the U.K. His XYL reports he is beginning to venture further and further away from the hotel.

Leon ZS2AM has a Kenwood TR7200G 2 metre transceiver for sale. At present the unit is fitted with 17 sets of crystals. Make him an offer.

Brian ZS2TY has just purchased another 2 metre mobile. We may be hearing more of him soon. (Hi)

Several new ZR call signs have been issued since the last issue of QSX.
Among them Johan ZR2BT, Piet ZR2BP, Roger ZR2BS, Sheila ZR2BR, Mike ZR2BO.
Mitch ZR2BU.

Ken and Lynn Biggs left last week to re-settle in the U.K. We wish them every happiness in their new/old QTH.

PLEASE NOTE! IMPORTANT8 NB NB NB NB

The next meeting of the Port Elizabeth branch takes place on Friday 15 Sept. at the YMCA Havelock Street at 8pm. This is the branch AGM and <u>your</u> attendance and support is needed. Please make a concerted effort to attend this one important meeting. Our branch has a voting strength of just over 100 and it is rather diconcerting to see only +- 2o members in attendance.
Do not stay away for fear of being asked to do something. A simple "no" will suffice.

Unfortunately the financial statement cannot be included in this issue due to the recent release of the treasurer from the whitehouse. He has assured me that it will be made available at the meeting. So, if you want to see how poor we are, see you at the meeting. You may be pleasantly surprised.

As mentioned above, OM Frank ZS2CY was recently discharged from the whitehouse and is currently doing his daily exercises in the comfort of his bedroom.
He is making steady progress but may be out of circulation for a few months yet.

CHAIRMANS REPORT.

This year I have decided to keep it short and I hope sweet. A more detailed report will be delivered at the meeting. As is customary, I also wish to report a fairly sucessfull year with an increase in membership and also funds.
Outdoor activity was quite prolific mainly in the form of DF hunts, but here there is however room for improvement. Several new licences were issued, thanks in many cases to the tuition of Albert ZS2U. A new repeater was erected and has proved to be by far the most popular of the three in the area. The year end functions were well attended and enjoyed by all. A Christmas tree for the youngsters was well received and the JOTA day enjoyed by those interested.
My sincere thanks to all members and committee members, especially the Secretary Brian ZS2AB and Treasurer Frank ZS2CY, Costs were kept down to a minimum with those pertaining to QSX almost reaching an all time low.
As stated above however, I would prefer to elaborate at the meeting.

73.

Dick.

Dick Schönborn. ZS2RS

The "German" Quad

—six bands with one antenna

Technical development leads to new and better amateur radio devices all the time, but it seems that in the field of allband antennas a stagnation has been reached. The hams who work all five SW bands mostly have two antennas for this purpose: a longwire for 80 and 40 meters and some kind of a three-band beam (which means "ugly things" on a tower in the garden). From the ham's viewpoint this is ideal, but most do not want to give their neighbors a reason to move at least three blocks away.

In his weekend shack near Bremen (a harbor city in northern Germany), DL3ISA developed a new amateur radio allband antenna. He tested a lot of different configurations and forms until he found a solution which is simple and operates well on 80, 40, 20, 15, and 10 meters—and is even useful for 2 meters.

He took 83 meters of antenna wire and mounted it in the form of a big quad about ten meters (30 feet) above the ground in a horizontal position, so that the ground serves as a reflector for 3.5 and 7 MHz. Each leg of this big quad has a length of 20.7 meters. The feedline is a 60- or 75-Ohm coax cable which is connected to the beginning and the end of the antenna wire in one of the four corners of the quad.

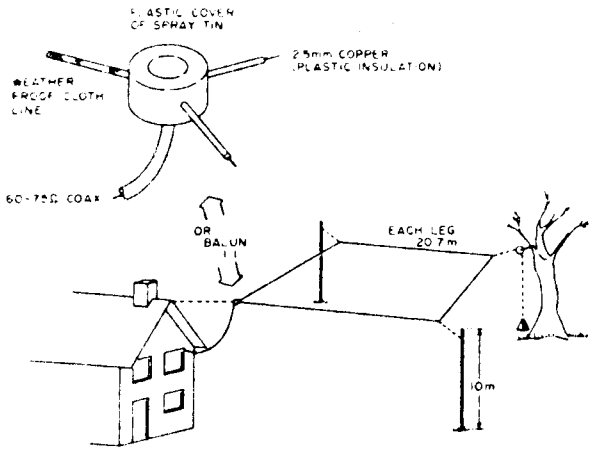


Fig. 1.

A balun (1:1) may be used at the connecting point in case of TVI/BCI, but a long or a deeply ribbed glazed porcelain insulator does an even better job, because it allows for no power loss. The whole connection point should be sprayed with acrylic or otherwise protected against corrosion. DL3ISA put the whole connection into a plastic cup to protect the end of the coax cable against wet weather. (See Fig. 1.)

The length of the transmission line is random, and impedance checks resulted in an impedance of 60 to 90 Ohms at the feedpoint, so that a 75-Ohm coax would be more favorable than 60-Ohm cable.

As a good material with sufficient strength, a 2.5 mm-diameter soft-drawn copper wire with an enamel coating was chosen for this antenna. The guy lines are weatherproof, rayon-filled, plastic clotheslines.

For a European amateur radio station, this antenna should be mounted in an east-west/north-south direction, because the four preferred directions are the extensions of the quad's diagonals. This way, QSOs can be made to the northeast (South Pacific, Japan, etc.), to the northwest (North America), to the southwest (West Africa, South America), and to the southeast (East Africa, Arabia). Of course, this antenna can be fixed in any other direction to work any desired country. On the 15 and 10 meter bands especially, several side lobes between the four main lobes were measured with a beamwidth of 10 to 20 degrees in the horizontal plane.

As a horizontal full-wave loop, this antenna receives only a negligible amount of electrical interference from the surrounding area.

The standing wave ratio was determined by DL3ISA and is shown in Fig. 2. There may be small deviations from the swr due to the local ground conditions. The influence of other antennas is negli-

Filched from 73 Magazine.

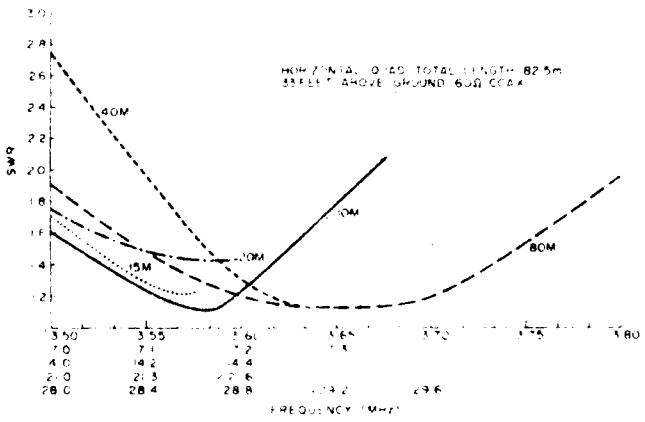


Fig. 2.

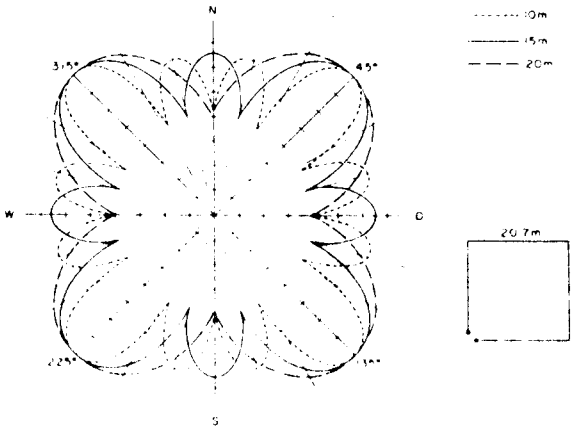


Fig. 3. Antenna height: 10m.

gible if these antennas are in the center of the quad. Parallel mounted antennas outside the quad gave a negative influence on the antenna data in the higher bands. Other antennas should be kept at a distance of at least seven meters from the quad.

The radiation pattern on 80 meters generally is at a high angle, and a radius of 600 miles has been found to be the area covered under normal conditions. The gain relative to a dipole mounted at the same height is around 6 dB; the quad has no directivity on 80m. On 40 meters, the radiation pattern is actually at a lower angle than that on 80 meters, and has no directivity.

On the 20, 15, and 10 meter bands, the radiation pattern is at an extremely low angle (similar to a rhombic antenna). On these bands, four preferential directions have been figured out in poor-to-medium conditions, but with an open band no remarkable directivity has been observed. The horizontal angle of the main lobes is about 30 degrees; the gain was 6 to 10 dB better than a two-element three-band beam at the same height and 12 to 18 dB better than a ground plane antenna. (See Fig. 3.)

Most of the above is just theory. In my practice, the antenna has worked as described only on 10, 15, and 20 meters. On 80 and 40 meters, the radiation has to be almost as low as on the higher bands. My log shows that within a couple of days in December, 1977, I worked the following stations, all on 80 meters SSB: 4Z4, TA1, W3, YK, VO1, JA1, 9M2, CT3, EA9, and C31. The transmitter used had an rf output of about 40-50 Watts PEP, and no clipping or processing was used. The antenna worked just as well for short distances. A gain of at least 2-3 S-units could be observed as compared to a dipole. The antenna could not be tested in QSOs on 40 meters, but comparable results are probable.

DL3ISA found that the antenna works satisfactorily at a height of at least 5 meters above ground. However, the bandwidth on 80 meters becomes insufficient under these conditions.

Near Frankfurt-am-Main, this antenna had been mounted according to the instructions of DL3ISA around a little house at a height of 9 meters. Experimental measurements at this place showed the same results as we had before, even though there was a whole house with all its electrical wiring inside the antenna.

Due to the extremely low angle of radiation, it was possible to work 15 and 20 meter DX to the US east coast and Brazil at a time when Europe was expected to be down from the west for 30 minutes.

A 2 meters test was made with a swr of 1:1.2 to 1:2.0, so that the antenna could be declared as a "six bander" without even a balun. However, the test was only run from 144-146 MHz. The North American band portion running to 148 MHz was not tested.

Taking into account the fact that this allband antenna is good for DX work in the higher bands, works most favorably on 80 and 40 meters, and is no spectacular monster to your neighbor's eyes, it is a real gain for almost any ham. It's also not a bad idea for Field Day. ■

FOR SALE. **Creed Teleprinter. R12. Lionel ZS2DD.**

FOR SALE OR SWOP.

FR 50B Receiver complete with manual etc. Value R120. Will swop for 2 metre SSB transvertor in working order. Donald ZR2BJ 41 Dundas Street Cradock.

P.S.

Have you perhaps borrowed any books from me?
I am looking for my copy of the ARRL VHF Antennas, and also the RSGB VHF/UHF Manual.

Please have a good look around the shack.

Many thanks,

Dick ZS2RS.

UNAUDITED FINANCIAL REPORT

PORT ELIZABETH BRANCH

S.A.R.L. JUNE 30 1978

INCOME AND EXPENDITURE ACCOUNT.

EXPENDITURE.		INCOME.	
Delegates Trav. Exp.	62.48.	Branch Subs.	270.00.
QSX P.E.	83.72.	Interest Received.	73.38.
Branch Dinner.	103.57.	P.E. Award.	25.
Licences.	4.15.	Donation.	64.00.
P.O.Box Rental.	5.00.	Bank Charges Received.	1.31.
Rent of Room.	11.00.	Christmas Raffle	127.00.
Printing & Stat.	15.75.	Log Books.	4.10.
Refreshments.	4.66.		
Childrens Xmas Party.	30.00.		
Excess of Income over Expen.	219.71.		
	R540.04.		R540.04.

BALANCE SHEET AS AT 30/6/78.

LIABILITIES.			ASSETS.	
Acc. Funds.	770.05.		Cash on Hand.	4.35.
Add Excess.	219.71.		Cash at Bldg Society.	430.52.
VHF Fund.	119.16.	1108.92.	Fixed Deposit.	600.00.
YMCA Rental Due.		5.00.	Int. Acc.	18.00.
			Badges.	10.00.
			QSL Stickers.	20.00.
			Log.Books.	6.50.
			Susp. A/c.	24.55.
		R1113.92.		R1113.92.

Signed F.G. Burrell. ZS2CY

Hon. Treasurer.

ANALYSIS OF QSX P.E ACCOUNT.

Postage.	R46.76.
Covers.	R21.00.
July to Sept 1977 Exp.	R15.96.
	R83.72.

2BG Peter du Plessis.