

**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**

JUNE 1985

# Port Elizabeth Branch

## »NOTICE OF MONTHLY MEETING«

MEMBERS ARE REMINDED THAT THE MONTHLY GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE S.A.R.L. WILL BE HELD AT THE SCOUT HALL, VAN PLETTENBERG St. KABEGA PARK ON FRIDAY 21 st JUNE 1985 AT 8.15 PM.

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## Committee

CHAIRMAN: Brian ZS2AB(303498) VICE CHAIRMAN: Dick ZS2RS (322111)  
SECRETARY: Marge ZS2OB(303498) TREASURER: Pete ZS2PJ (301493)  
AWARDS: Gordon ZS2GK(306776)  
QSX-PE: ZS2OB and ZS2AB Trevor ZS2AE(321746)

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## bulletin roster



16th June  
23rd June  
30th June  
7th July  
14th July

Dick ZS2RS  
Marge ZS2OB  
Pete ZS2PJ  
Trevor ZS2AE  
Gordon ZS2GK

## THIS and THAT

**THANKS** are gratefully extended to Neil ZS2AI, Mike ZS2MJ and Max ZS2HR for their donations of books to the library and to Dick ZS2RS for the cupboard. This should all be in working order by the next meeting for the use of members.

**WANTED** A general coverage receiver in good working order is wanted by Neil ZS2AI (Phone 0451-4626) for an avid S.W. listener.

### INVITATION

An invitation has been received from the Algoa Branch to a talk at their next monthly meeting. Cor ZR2CG will talk on Fibre-optic Technology. The date is 4th July at 8p.m. at the Newton Park Library Auditorium.

**HAPPY HOLIDAY** to Harry Stickley 3D6BP our member in Swaziland who is enjoying three months vacation in VKland. Also to Bill Browne ZS2BY and Winnie who are holidaying in the Kruger National Park. Come home safely and enjoy yourselves.

**MANY THANKS** to several members who have submitted copy for QSX-PE. Due to pressure for space this month, they are being held over.

### NEW SPECIAL OFFER TO MEMBERS.

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DO YOU OWN EITHER A VHS OR BETA VIDEO RECORDER? IF YOU DO, YOU CAN TAKE ADVANTAGE OF OUR MODIFIED MONTHLY SPECIAL OFFER.

OUR VERY GENEROUS DONOR HAS OFFERED US, EACH MONTH, 2 TOP QUALITY VHS OR BETA THREE-HOUR BLANK VIDEO TAPES. THESE ARE SELLING AT THE ALL-TIME LOW PRICE OF R15 EACH. FUNDS GO TOWARDS THE PRODUCTION OF QSX-PE.

CONTACT MARGE ZS2OB FOR THESE TAPES. FIRST COME, FIRST SERVED.

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MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT THE SCOUT HALL, VAN PLETTENBERG STREET, KABEGA PARK, PORT ELIZABETH, ON FRIDAY 17th MAY, 1985.

PRESENT: 24 members (this represents 34% of the members living in P.E. and Uitenhage and 27% of total membership)

APOLOGIES: ZS2VM, ZS2TJ, ZS2MM, ZR2EY, ZS2KX, ZS2LO, ZS2BK.

The Chairman welcomed all to the meeting, especially Johan ZS4LS and John ZS2JR. He extended, on behalf of all the members, deepest condolences to Gus ZS2MC and Ron ZS2MF on the death of their mother and mother-in-law. Sympathies were also extended to Max Levin ZS2HR, a member in Queenstown, whose wife had recently died.

MINUTES: The Minutes of the meeting held 19th April, having been published and circulated in QSX-PE were taken as read, proposed by Dick ZS2RS and seconded by Mitch ZS2DK.

ARISING: 1. The recent Branch DF Hunt was discussed and although there had been several problems with some of the sets which resulted in one participant having to be talked in on 2m and the other not finding the Fox at all, and all contestants having to battle with maps in a high wind, the general consensus was that it was enjoyed, and after the rig problems have all been ironed out, a further Hunt would be held in a few months time. There were six sets available and members could pair up, if they wished.  
2. The social evening at the Himalayan Restaurant to celebrate the Branch and League Diamond Anniversary was attended by 28 members and wives and was thoroughly enjoyed and it was suggested that we do it again sometime.  
3. National Technical Linkup. The Chairman said that signals on 80 meters had been very good and had been relayed onto 2m. The talk was on E.M.E. by Peter Carey ZS6JY ex ZE5JJ. It had been well presented and had been the most interesting of all previous link-ups.

CORRES: 1. Letter from HQ regarding the moving of repeaters and ham stations.  
2. Letter from Paul Johnson ZS1BR regarding the Niell Branch Efficiency Award.  
3. Various Branch Newsletters.

FINANCE: The Treasurer reported that there had been no major expenses.

ARISING: The Chairman said that a breakdown of the subs for 1985/86 had been printed in QSX-PE and that there had also been a note regarding the payment of subs in instalments. A system of local invoicing was being instituted by the Branch and anyone paying their subs in instalments would receive a statement with their next copy of QSX. Receipts would also be included as in the past.  
It was very pleasing that we were now being able to almost cover the costs of printing and postage for QSX due to the advertisements. Three of the adverts were for a year and it was hoped to get some more. The donation of the video tapes also helped greatly.

GENERAL: The Chairman reported that the Branch had been donated back issues of Radio ZS from 1947, as well as a huge box of various technical books and Practical Wireless and it was hoped that we could have a cupboard in the hall for storage. The books would be catalogued and stamped and members would be free to borrow them at Branch meetings. A cupboard would be needed

and if anyone wished to donate more books, these would be most welcome.

2. Andy ZS6EQ had sent a message that he had taken down his antennas prior to a move to a new QTH and he would be back on bulletin as soon as possible. He sent 73's to all members.

3. A number of events were in the offing when members would be asked to provide communications. The first of these was a Navex on Saturday 8th June and stations would be set up at Base, Addo, Progress, Swartkops and Grasmere. The following volunteered: ZS2WG, ZS2RT, ZS2AO, ZS2RS, ZS2AB, ZS2OB. Both VHF and 80 metres would be used.

On 16th June, the Algoa Flying Club would be putting on a static Air Display and they had asked us, being one of the organisations connected with their operations, to put on a stand, either operative or not. It was decided to have an operating station plus a display of old equipment. Dipole antennas would be erected. The following offered their help: ZS2RS, ZS2PJ, ZS2AE, ZS2WG, ZS2AO, ZS2AB, ZS2OB. Arrangements would be made soon.

4. The donation of a DX40 transmitter and VFO had been made to the Branch by Cliff ZS2AP for the use of new hams during their cw operation. Cliff was heartily thanked for his kind gesture.

5. A request had been made by Ron ZS2MH for old newspapers to be brought to the hall. These would be sold in aid of Scout Funds.

6. A suggestion was made that the Branch purchase the latest issues of the Foreign Call Book and the U.S.A. Callbook and that these be kept at a QTH convenient for members to make enquiries. This was considered a good idea and arrangements would be made for the purchase thereof.

7. Clive ZS2RT was thanked for the photographs taken at the last Branch meeting. These were of the presentation of Life Membership Awards to Vi and Cyril and also of the cake and some of the members present. A photograph of the presentation had appeared, together with a write-up in a local paper and 2 others had been sent to Radio ZS.

8. Colin ZS2AO then spoke about the possibility of the Branch setting up and maintaining a Mailbox system, and he explained that this is similar to Beltel and Teletex. This would be on a simplex 2m frequency and the modems for use with home computers were very simple to build up and could form the basis for a future Branch project. The radio was no problem, but as the purchase of the computer and disk drive would be quite expensive, it would be up to the Branch to decide on the use of Branch funds. This would be justified if it received usage by a large number of the Branch members. It was suggested that Colin get together a working group to study the feasibility of the scheme, regarding aspects of type of computer, software antennas, frequency etc.

There being no further business, the meeting was closed.

sgd:  
B.A. Weller ZS2AB  
Chairman

sgd:  
M.T. Weller ZS2OB  
Secretary

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### SUBSCRIPTIONS.

Subs are due from the end of June and we invite you to make use of the addressed envelope included with the Newsletter to return them to the Branch. Let the Branch go from strength to strength. Your membership is highly valued.

## COCKSCOMB REPEATER INSTALLATION.

A RUNDOWN OF THE DAYS EVENTS - INCLUDING SOME OF THE NEVER-SHOULD-HAVE-BEEN-REVEALED DETAILS. BY BRIAN ZS2AB.

As many of you already know, the Branch has been planning the erection of a two-metre repeater in the area north of Uitenhage for some years. To find a suitable site which would provide good coverage into areas where our Ladies Slipper unit was not usable, (we really needed more height to accomplish this) we considered the Grootwinterhoek Range, the highest peak in this range being more commonly known as Cockscomb, or rather the series of peaks at the western end of the range. We would very much have liked to use the highest of these peaks but the property belongs to a member of the Mountain Club, who was not keen on having any unnatural structures poking skywards from his peak, so we were forced to look at some of the others. Dick ZS2RS had talks with another farmer in the area, on whose farm a suitable peak is situated, and he was perfectly agreeable to our using it. The peak is known as Tierhoek, and is about 15 KM East of the highest peak, and 1100 feet lower, although still 1408 metres or 4620 feet above sea-level. Several years have passed since these initial steps were taken to bring the project into being, and the repeater unit, which was assembled mainly by Trevor ZS2AE and son Toff ZR2EY, from a "scrap" Pye Europa transceiver, which was very speedily put back into good order. A crystal filter for the receiver was ordered from the USA, and Trevor managed to acquire, in true P.E. Branch fashion, a very rugged cast aluminium waterproof cabinet, designed for pole-mounting, a tapered steel pole, a set of liquid-electrolyte NiCad cells, while from elsewhere, a suitable 12 volt solar-panel was "lurked", a 50 mm thick-wall 6 metre-long aluminium pipe appeared out of heaven-knows-where, a commercial two-stack dipole array for the transmitter was obtained, as well as a high-gain (3dB) vertical for the receiver.

After much heavy engineering, the poles were made to fit very neatly into one-another, the box mountings were made to fit, the solar-panel was provided with suitable bracketry (strong enough to anchor the Astor), and the receiver and transmitter units, together with a self-controlling regulator for the charging of the NiCads, and all the logic circuitry to control the repeater operations were assembled into very nice enclosures which in turn were mounted into the aluminium cabinet. The batteries fit into the lower part of the same box. The whole repeater was assembled exactly as it would be on the site, and run on test in Trevors back garden for a long time to monitor the battery and charging conditions throughout a full winter. All proved satisfactory, and the only remaining problem was some way of getting the whole thing up the mountain. This proved to be the longest wait of the whole project. We knew that we would have to employ a helicopter, as foot-slogging it up the peak with poles, etc., on ones back would not have been fun !! A helicopter normally available here was only a two-seater, and this would have meant a number of flights up the peak, so this idea was put on ice, and negotiations commenced for the use of a larger chopper which comes to P.E. every couple of months to do heavy work for various organisations. Unfortunately we missed out on several of these visits, but on Monday of the week before last (3rd), I received a call from the local pilot to tell me that the large chopper was arriving that day, and that the pilot would contact me. This duly happened, and after a detailed description of who we are, and what we were trying to achieve, and the way in which history has seen our Branch achieve things, it was agreed that the head-office of the helicopter company would be contacted to arrange the job.

Said head-office were very helpful indeed, and agreed to assist us in every way possible. We were advised that, due to insurance problems which might arise, they could not do the job unofficially, but would charge us only for the actual flying-time up and down the mountain, the trips to and from P.E. and waiting-time would be free-of-charge. As we could not ask for better than this it was decided to get on with it. Confirmation of the time available for the job was only received on Thursday afternoon, when I visited the pilot to explain in exact detail what would be required of him, what the structure would consist of, and, in turn, for me to learn the hand-signals necessary to marshall the chopper as the pilot would be unable to see the pole hanging under the craft. It was decided that the chopper would arrive at the foot of the mountain at about lunch-time on Friday. Friday dawned bright and clear with no wind to speak of, and a small convoy set off at about 9 am. Trevor and XYL Julie in their Kombi, with all the poles and radio equipment, tools, field kitchen (bless you, Julie), etc., and Dick ZS2RS and I with some ropes and odds-and-ends which included various cameras intended for use to capture some never-to-be-repeated photos as the chopper moved into position on the peak (Guess who left HIS camera in the Kombi? Marge was NOT amused!!) The 100-odd KM to the pick-up point was covered in about 90 minutes, some 50 KM being on dirt-road. The entire repeater assembly was then assembled on the ground, complete with stay-wires which were tied to the bottom of the pole for the lift-up. All connections were made, except for the batteries which travelled separately, and the unit was ready to go.

In order to assist the chopper on arrival, a large cross was laid out on the ground using blank newsprint. Each arm of this cross was about 7 metres long, and held down with umpteen stones. There was not much choice of landing-site as it happens, and the presence of several telephone-lines did not help either, so we set up the cross in the road, hoping that no-one decided to drive past the spot. (Needless to say someone did! Dick had then to explain to the Oomie what we were doing!!) Well, the chopper arrived on cue, and then we learned another useful thing about chopper pilots. Even when there is next-to no wind, they like to land into what wind there is, so, having discovered the wind to be about 0,25 Knots Westerly, the chopper approached our cross from the East after circling the site once. The telephone-lines previously mentioned were East of the landing site, in a direct line with the landing chopper! The marshalling signals were rapidly dragged from their resting-place, and the pilot was signalled to stop his approach. After hanging there for a while, he spotted the lines, and proceeded to land in what could pass for the front-garden of the farmhouse. The cross disappeared completely in the dust-storm, and the entire labour-force of the farm appeared to see what was happening. A couple of ostriches in a nearby field decided that the grass several fields away would be much tastier!!

We decided that our first flight up to the top would take all three of us and the tools etc., and the pilot would then return to the pickup point, where he would hover over the mast, while Julie attached the lifting-rope to the quick-release hook under the chopper. (Bless you again, Julie). As it turned out, had we not done it this way, we would have had a major problem up top, as I had to stand some 20 metres from the pole-position in order to do the marshalling, and one other person on the ground would never have succeeded in securing the stays. We located the stay-pegs which Dick had hammered into the ground during a previous flight to the site years ago, and within a few minutes the chopper was back with the pole dangling from its underside. Well, all had gone so well up to this point that we were wondering, in fact, somebody expressed the all-too-familiar phrase, "When will Murphy show up?". He did ! The bottom of the pole was hidden from my view during

the final approach, and, with the pole only a very short distance from the hole we had dug to locate it, the base struck an outcrop of rock. This caused the pole to shudder rather violently, and the top section of the receiving antenna broke off and fell to earth. Now we were in a pickle, as there was no proper way of indicating to the pilot what had happened, and to get him to lower the pole horizontally onto the deck. In view of the chosen lifting-point of the pole, I realised that we could get it to ground-level if the chopper reduced altitude. I signalled him to descend, which he did for some distance, but, not knowing what the pole was doing below him, he stopped his descent as he was worried that the rotors or the chopper body might come into contact with the top of the pole. The pole, at this stage, was about 45 degrees to the ground, so I had no option but to signal him to drop the lot! The pole fell the rest of the way, but fortunately landed without any great harm except for a slight buckle in the RX antenna earth-screen.

After surveying the damage, it was decided to make the top piece of the broken antenna into a quarter-wave vertical, rather than abort the whole effort. This we rapidly did with some thick copper wire and lots of plastic tape. The new "antenna" was then strapped to the top piece of the original antenna and well sealed. Now to get it up again !!! We decided to have a go at manhandling it up. Trevor and I each took a top-stay, with Dick and George (the pilot) walking it up. We did not have another pair of hands to actually anchor the base of the pole, but gave it a go. The pole rose very obligingly to the critical angle, and then the bottom decided to kick out. We couldn't hold it at this stage and eventually it all ended up with Dick and George sitting on a large rock with the pole securely pinning them down. They were able to extricate themselves after a bit of effort from all to lift the pole, but, unfortunately, George slightly sprained his right hand. This did not deter him, and we decided to lift the pole with the chopper. After attaching the rope again, it was lifted into position without further mishap, and then the fun started. The draught from the main rotor would catch our earth-screen and blow it sideways, which meant that the pole was bent over most of the time. Just as I was able to get the chopper and pole into a reasonably vertical combination, the pole would swing the other way ! At one stage it did a complete circular swing under the chopper. With much running around, during which Dick took several tumbles, he and Trevor managed to get the stays tied up albeit with the pole at an alarming angle. I signalled the release of the rope, and George landed again. (I might add that we had removed the solar-panel before lifting the pole again, so that Murphy could not cause Georges' shackle to smash it when he let go). Well, with much pulling and pushing, we got the pole vertical and tied securely. A coax plug which had pulled off one of the cables was remade, and the unit was powered up for test. Contact was made with P.E. and all seemed well, although we did not expect too much from the makeshift antenna. Satisfied that we had done all we could, the debris was loaded back into the chopper, and four much wiser men returned to the pickup point and Julie's field kitchen. (Blessings again!!!!!!) I am quite certain that George will leave a day earlier if another such job is ever proposed to him! Seriously, though, we learnt a tremendous amount about such an undertaking, and a lot of things would be far differently done if the exercise is ever repeated. I can assure you that, without the expertise of our chopper pilot, who is obviously highly experienced, and his generous help on site, we would never have got the thing up. Our sincere thanks go to Trevor, Toff and Dick for their work on this project, special thanks to Julie for being one of the team, also to Mr. Steynberg for the use of the site, and to Court Helicopters for their generous contribution without which the project would have been financially impossible. The repeater operates on 145,000/145,600 MHz. Please use it as much as possible for out-of-P.E. contacts so that we can gauge its performance.

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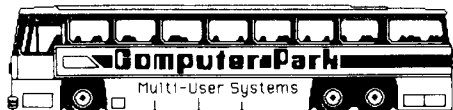


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## BEYOND THE BLUE HORIZON.

Over-the-Horizon Radar Systems. F.C. Judd.

### Part 1.

Over the horizon radar (OTHR) has been with us for some time now as all h.f. band amateur radio operators know from the characteristic "tock - tock - tock" QRM called the "Woodpecker", because that is what those signals are. They are very definitely NOT used to control the weather or to induce some kind of psychological effect on people as suggested by some of the less well informed media. However, it has been established that there are at least four Russian OTHR stations in operation using transmitters with a pulse power output in the region of 20 to 40 megawatts. If the antennas employed are highly directional narrow beam systems, similar to those used in other countries for OTHR, the effective radiated power could be as high as 200 to 400 megawatts. The experimental American CONUS-B OTHR rates an e.r.p. of 100 megawatts which is considered as relatively low power.

### DEVELOPMENT AND FUNCTION OF OTHR.

The idea of OTH radar may have stemmed from experimental high power World War II h.f. radar although serious research on its possibility did not begin until 1950. OTHR systems use the ionosphere virtually as a mirror to "see" around the natural curvature of the earth and although the Russian system has been fully operational for a number of years, the United States of America have also been experimenting with radar systems of this nature for a considerable time.

OTHR is operated on almost any suitable frequency (determined by ionospheric conditions) within the range 6 to 30 MHz and not always with regard to other services using specific frequencies in that portion of the radio spectrum e.g. broadcast and amateur radio stations. It must be emphasised that the Russians are most guilty of this practice whilst the Americans have so far shown consideration for others operating in the h.f. band region necessary for OTHR.

Although not too much is known about the Russian OTHR stations at present in operation, quite detailed information has recently been made available describing the function of the latest American OTHR system known as CONUS OTH-B (B for back scatter) and which may throw some light on the function of OTHRs now being used in Russian and other countries. (CONUS stands for Continental United States). The American CONUS OTH-B radar station is located near the town of Bangor in the State of Maine on the North East American coast. Later there will be others operating one on the East coast and one of the West coast. One system known as a forward scatter h.f. radar has been operating for some time in the Far East with facilities for reception at sites located in Western Europe. The Australians have also been testing a prototype OTHR.

Although an OTHR has certain disadvantages, it has other special fundamental advantages, e.g. it can cover an enormous area by comparison with normal line-of-sight radar and is estimated to be about ten times less expensive than a space orbiting radar system. OTHR can track air-craft and missiles both from and to ground level and so can be used to detect a missile launch. It can also be used to provide warning of weather fronts and for tracking the eye of hurricanes over water, as well as the movement and courses of ships at sea.

### WHY AMERICAN OTHR HAS TAKEN SO LONG TO DEVELOP.

Firstly it has taken a number of years to consider environmental problems such as potential electro-magnetic interference and possible material damage. Another consideration is the physical hazards to persons in close proximity to the transmitters the e.r.p. of which, even for initial experiments, has been around 100 megawatts. Delay has also been due to lack of suitable processing technology, i.e. waiting for computer techniques to catch up.

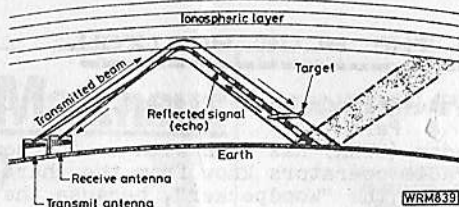


Fig. 1.1: Basic principle of OTH radar

## HOW DOES OTH RADAR FUNCTION?

This form of radar depends entirely on the special properties of electromagnetic radiation in the high frequency part of the radio spectrum, namely 3 to 30 MHz (100 metres to 10 metres in wavelength) and on the behaviour of the ionosphere which consists of several electrically charged (ionised) layers of rarefied air. These layers have free electron densities which vary from layer to layer according to the time, day or night, the season of the year and the sunspot activity. They occupy a space some 60 to 350km above the earth's surface.

Microwave radiation normally used for line-of-sight radar systems passes virtually unimpeded through the ionospheric layers but a significant portion of much lower frequency (h.f.) radiation is reflected back towards the surface of the earth to arrive at distances well beyond the visual horizon. However, enough reflected radiation is returned as back scatter on a reciprocal path i.e. to the ionosphere and thence to its point of origin as in Fig. 1.1. Most of the returned signal consists of ground or sea clutter but solid bodies such as aircraft and ships that are in motion generate discrete echoes which, with Doppler processing can be separated from the clutter.

Some of the transmitted energy is not "back-scattered" but reflected further on by another earth-ionosphere-earth hop. Whilst this could be used to extend the range of OTHR to around 6670km the detection of objects at that range is not considered reliable.

## THE CONUS OTH-B RADAR IN PRACTICE.

The main function of the CONUS-B system located in Maine is long range detection of airborne strategic bombers and cruise missiles likely to be directed toward the North American mainland. Existing radars such as BMEWS (Ballistic Missile Early Warning System) supplemented by space systems, can only provide warning time of an ICBM (intercontinental ballistic missile) strike of 24 to 35 minutes. The time limit with line-of-sight radars of a manned bomber-missile carrier, or cruise missile attack is about 10 minutes; even less if approach is made at low level. The CONUS-B radar allows a greatly increased time for state of readiness e.g. about 3,3 hours warning for sub-sonic attacks and 1,2 hours for approach at supersonic speeds. The effective detection range is in the region of 3336km. It is quite possible that the Russian OTH (Woodpecker) operates on a similar principle.

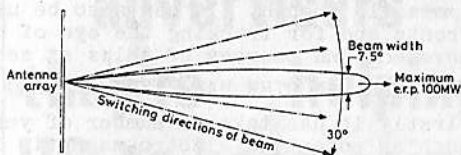
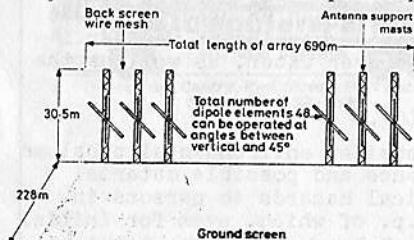


Fig. 1.2: General arrangement of OTH radar (To be continued)  
transmitting antennas

## THE ELECTRONIC MAILBOX.

=====

It's Monday evening and you arrive home tired after a hard day at the Saltmine. After supper and with a suitable glass of R.F. in hand, you sit back in your favourite chair and fire up the 2m rig and home computer.

Setting the right frequency and punching a few keys, you gain access to another computer situated somewhere in Port Elizabeth. The difference here, is that the other computer has been busy monitoring the 40m band since sun-up and has just recently changed over to a local 2m frequency for the night shift.

Via the software contained within it and using a disk drive as a storage medium it has been busy transmitting and receiving messages from all over South Africa on a crystal controlled spot frequency. Needless to say, the remote computer has at its disposal, 40m and 2m base transceivers.

As you log on to the computer it recognises your call sign and promptly advises you that a message awaits you.

A few deft punches of the keyboard and the message scrolls across your monitor while you sit back and sip your R.F. After reading it, you quickly type in a reply to your friend in Cape Town and instruct the computer to advise him of it when next he logs on.

While you are about it, you decide to look over the directory to see if there is anything there that may be of interest. Under the heading "Equipment for Sale" you note that a ham in Durban has a second hand 6m rig for sale. All relevant details are there, including a phone number if interested. Making a mental note to phone the guy tomorrow you read on. Ah! The local Sunday morning bulletin of news and views is also listed and as you overslept (shame on you!) and missed it, now would be a good time to catch up on all the news.

Had enough? Mindful of the fact that other users may be waiting in line, you punch in the appropriate commands and the computer signs off and is instantly ready for the next user.

Science Fiction? Hardly, what was described is actually happening all over the world in Amateur radio circles. There are two systems operating in South Africa at the moment. These are the "ZS6CC Bulletin Board" which operates from Pretoria 24 hours a day on 14,087 MHz and the "ZS5FM Mailbox" which is on 2m only in the Durban area. It has made a few appearances on the 40m band but has recently gone on to VHF only.

The most amazing aspect of this all is that these two systems are privately owned and run by individuals who give up their own rigs, computers etc to supply a service to fellow hams.

At a recent Port Elizabeth Branch meeting it was proposed that the Branch instal and run a similar system as a service to not only its members but to all amateurs within range. The idea was favourably received in principle but a thorough investigation would have to be made as to the type of equipment to be used and not least, the cost. As can be imagined this would be considerable and unless ways and means can be found to reduce the cost, the project may never get off the ground.

Local amateurs who would be able to access the system would have to have in addition to a 2m rig, a home computer with suitable software and a simple interface.

# TTY INTERFACE

Software to enable you to operate radio-teletype on most makes of home computers is readily available. The interface for 2m is relatively simple to build and could form the basis of a future branch project.

To help form some idea of the response to the project from Port Elizabeth Branch members I would like all those interested to give me a call at 312471 (home) or write to The Secretary, Port Elizabeth Branch, Box 462, Port Elizabeth, 6000.

73's.  
Colin Ashwell ZS2A0.

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South African  
Radio League  
HEADQUARTERS

9 Orphan Street

Cape Town 8001  
P O Box 3911  
Cape Town 8000  
Tel: (021) 24 6403

Kaapstad 8001  
Posbus 3911  
Kaapstad 8000  
Tel: (021) 24 6403

Suid-Afrikaanse  
Radioliga  
HOOFKANTOOR

NOTICE TO ALL BRANCHES OF THE SARL

23 May 1985



Headquarters advises as follows:

(1) It has come to our notice that many members, particularly those who were comparatively recently holders of a ZR callsign, are receiving 2 editions per month of Radio ZS. If YOU are one of those, please let both the Branch and Headquarters know as soon as possible. As you can imagine, printing costs and postage charges for Radio ZS are considerable, and your attention to this matter would be appreciated.

(2) In a recent letter received from the Office of the Postmaster General, the SARL was reminded that: "Under no circumstances will any Radio Station be moved to a new site or new address without the written permission of the PMG". If you plan to move, please advise the PMG accordingly.

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## ENVELOPE

Enclosed is an addressed envelope

which you may like to use to return your voting slip and also your subs (or part of) this month. Your receipt for subs will be sent with the next issue of QSX-PE.

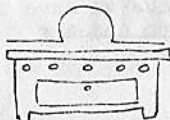


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Sent to us by Ed K8EMI who exchanges newsletters with us monthly.