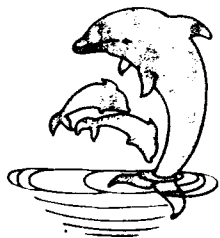




Q S X
P E



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

P.O. BOX 10402
LINTON GRANGE
6015

E 06/90

NOTICE OF MEETING.

Members are reminded that the next general meeting of the Branch will be held on Friday 15th June, 1990, at St. Martins Church, Kabega Park at 8.15p.m.

After the business of the meeting, there will be a talk on Marine Diamond Mining given by Owen Thomas ZS2AZ. This should be most interesting and we might learn a few tricks on what to look for at the beach!!!!

SILENT KEY

It is with deep regret that we have to announce the passing of Basil Gibson ZS2PG in Cape Town after a serious illness.

Basil was first a member of the League about 20 years ago with the listener call ZSL2PEAB. He served on the Committee as Chairman and various other capacities for several years. He was also the youngest President ever of the P.E. Chamber of Commerce, reached the rank of Major in the Prince Alfred

Guard and E.P. Command, was a pilot who achieved many successes locally and at rallies nationwide, a fervent campaigner for justice and rights in his job as attorney and in politics. We shall miss him. Rest in peace Basil and sincere condolences to Ros, Colleen and Wendy.

VOLKSWAGEN/ALGOA RALLY

This will be taking place on 22nd and 23rd June and of course operators are needed. Due to the rough terrain, both VHF and HF will be used. Beavan ZS2RL would have been co-ordinating operations, but Lionel ZS2DN will be taking over, due to the fact that Beavan's daughter has chosen that day to get married. If you would like to be involved in any way, please contact Lionel whose phone number appears on the back page of this news-letter.

PERSONAL NEWS

Welcome to Ben Durham of Port Elizabeth who has joined the League and we wish you a long and happy association with the Branch and the League. Good luck with your studies for the P.M.G.'s examination Ben.

FIRST DF HUNT OF THE NEW SEASON

This took place on Thursday 24th May and was attended by Wolf ZS2WG and Kathy, Owen ZS2AZ and Doris ZS2LT, Colin ZS2CTR, Brian ZS2AB and Marge ZS2OB, the latter two having to pull out early, unfortunately and not finding the Fox although they thought they were quite close at one stage. The ultimate winner of the hunt were Wolf ZS2WG and Kathy, who found the Fox after 40 minutes. Thanks to Vic ZS2SZ and Athol ZS2CM and son Anthony for the organisation. We will be holding further DF hunts and the rules will be published in QSX PE prior to the event so let's hope we have a better turnout next time.

2M REPEATER GUIDES

The Branch has several of these on hand and if you wish to purchase one they cost R5 including tax, please let Marge ZS2OB know.

CONGRATULATIONS

To Garth ZS2HB and Ria Laaks on becoming grandparents - a new baby girl in the family to coo over!

BIRTHDAY AND ANNIVERSARY WISHES FOR JUNE

Happy birthday to:

1st Jeff ZS1VS

5th June ZS2JJ

10th Magda van der Merwe, Ken ZS2OC

11th Maureen Fulton

19th Natalie Akers

26th Ben ZR2CS

4th Claire Smailes

9th Gus ZS2MC, Sakkie ZS2ID
and Joan Knapp

16th Fred ZS2EQ

25th Lionel ZR2AAH

Happy Anniversary to:

4th Jim ZS2LR and Marge

8th Neil ZS2AI and Heather

16th Viv ZS2VM and Peggy

5th Trevor ZS2TJ and Pat

12th Gordon ZS6AFL and Joan

26th John ZS2AAN and Mandy

Best wishes and very many happy returns to you all.

MINUTES OF GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT ST. MARTINS CHURCH, KABEGA PARK ON FRIDAY 18th MAY, 1990.

PRESENT: 36 members

APOLOGIES: as per register.

The Chairman extended a welcome to members and especially to Ben Durham our newest member, to all the ladies and visitors.

A moments silence was observed in memory of Basil ZS2PG who passed away recently. The Chairman sketched a brief history of Basil's background.

MINUTES: The Minutes of the meeting held 20th April, 1990 having been published and circulated in QSX-PE were taken as read, proposed by Beavan ZS2RL and seconded by Gus ZS2MC.

FINANCE: Colin ZS2CTR the treasurer reported that the state of the finances was healthy. A copy of the statement had been handed to the Chairman. The balance on hand is R4524.10.

CORRES: Branch Newsletters.
Council Minutes.
Minutes of 1990 A.G.M.
Letter of thanks from Avril ZS2NU.
Membership applications from Ben Durham and Mervyn Akers.

GENERAL: (1)The Chairman reminded members of the D.F. Hunt to be held on Thursday 24th starting at 2p.m. at the Framesby Civil Defence Centre. Vic ZS2SZ mentioned the transmission times.

(2)Beavan ZS2RL mentioned that a Sunday lunch get-together would take place on 10th June at Wyndomayne Tea Gardens. The cost was R11.50 per person which included GST. Beavan asked that all monies be paid to him well before that date as a firm booking had to be made.

(3)Buddy ZS2CA showed a DF set in kit form and also a dummy load. These were from the Pretoria Branch. If there was any interest, he was prepared to find out whether any more kits were available. Several members showed interest in the projects.

(4) Trevor ZS2AE proposed revamping the Grahamstown repeater and June 2nd was set as the date. The following said they would be prepared to go along and help: ZS2RS, ZS2CTR, ZS2VM, ZR2L, ZS2WG, ZS2SZ, ZR2AAH.

(5) Beavan said there was no news yet of the Volkswagen/Algoa Rally.

(6) Dick ZS2RS asked whether there was anybody interested in getting involved in making a 3.2 meter satellite TV dish. There were no takers.

At this stage tea was taken. Thereafter a very interesting video on the Titanic was shown, courtesy of Waldie ZS2WM. After the video, Allan ZS2AJ gave a short talk on the transmitters used in the Titanic and other ships on which he had served as Radio Officer.

sgd: M.T. Weller ZS2OB
Chairman

sgd: R.W. Schonborn ZS2RS
Secretary

RADIO AMATEUR CODE

THE RADIO AMATEUR IS CONSIDERATE - NEVER KNOWINGLY OPERATES
IN SUCH A WAY AS TO LESSEN THE PLEASURE OF OTHERS

THE RADIO AMATEUR IS LOYAL - OFFERS LOYALTY, ENCOURAGEMENT
AND SUPPORT TO OTHER AMATEURS, LOCAL CLUBS AND THE SOUTH
AFRICAN RADIO LEAGUE, THROUGH WHICH AMATEUR RADIO IN SOUTH
AFRICA IS REPRESENTED NATIONALLY AND INTERNATIONALLY

THE RADIO AMATEUR IS PROGRESSIVE - WITH KNOWLEDGE ABREAST OF
SCIENCE, A WELL BUILT AND EFFICIENT STATION AND OPERATION
ABOVE REPROACH

THE RADIO AMATEUR IS FRIENDLY - SLOW AND PATIENT OPERATING
WHEN REQUESTED; FRIENDLY ADVICE AND COUNSEL TO THE BEGINNER;
KINDLY ASSISTANCE, CO-OPERATION AND CONSIDERATION FOR
INTERESTS OF OTHERS. THESE ARE THE HALLMARKS OF THE AMATEUR
SPIRIT

THE RADIO AMATEUR IS BALANCED - RADIO IS AN AVOCATION, NEVER
INTERFERING WITH DUTIES OWED TO FAMILY, JOB, SCHOOL OR
COMMUNITY

THE RADIO AMATEUR IS PATRIOTIC - STATION AND SKILL ALWAYS
READY FOR SERVICE TO COUNTRY AND COMMUNITY

DE-SOLDERING MADE SIMPLE

Removing miniature components from printed circuit boards can be difficult - if you don't know how. Here A.J. Lowe shows a cheap and simple way to do it. (From Electronics Today)

Desoldering tools tend to be messy, not easy to use, and expensive - especially for the infrequent user. The technique described here is clean, simple, quick and cheap - ideal for getting semiconductors off those disposal computer boards, or for repairing p.c. boards. You need to buy some 3mm copper braid. It costs very little and can be obtained from electrical trade houses. Buy a few meters and cut it into lengths of about 30 cms.

Next, this braid must be fluxed and the best way of doing this is with rosin. Put a few lumps of rosin (from a hardware store) in a jam jar and half fill the jar with methylated spirit. It takes time to dissolve but, when it has dissolved you have a first rate flux lacquer for p.c. boards, as well as a flux for this desoldering process. Put your short strips of braid in the jar and soak them in the rosin solution. Extract them, drain them into the jar and put them aside to dry. Now, you have ideal solder absorbers. The copper braid will not tarnish as it is coated in rosin and it will suck up solder as it is fluxed right through.

To desolder, first clean your soldering iron bit, so that there is no excess solder on it to be absorbed by the braid. Then hold the braid near the joint to be soldered and heat the braid near the end with the iron. After a few seconds, press the braid on to the joint with the iron and almost immediately the solder is sucked into the braid. This happens so quickly that there is little danger of overheating semiconductors. Device leads are left so free of solder that they can be raised with a knife and the device removed from the p.c. board. When the end of the braid is full of solder just snip it off and discard it.

If you are desoldering devices whose leads have not been bent over at the back of a p.c. board, but pass straight through, first pierce a hole in the braid with a scribe and then surround the device with the braid. This method with braid works very well on desoldering tag strips where several leads are almost knotted into the tag. It's possible to remove so much solder that the join can be taken apart. Practice first!

SOLAR ACTIVITY

It was one of my earliest memories of the frustration of short wave listening. My brother had built himself a SW receiver from a kit and for hours on end we scanned the bands.

One afternoon we switched on the radio to find - nothing! We spun the tuning knob through all the spots on the dial where a few hours before, there had been clusters of stations. There was now an eerie silence. If we had switched to the medium wave bands we would have found business as usual, but instead we blamed the set - probably a loose connection somewhere.

In fact the cause had been millions of miles away.

Solar flares are vast eruptions on the surface of the sun, throwing out streams of ionised particles and X-rays. They can literally wipe out short wave activity within minutes, in what is known as Sudden Ionospheric Disturbance (SID). There has been a spate of these disturbances recently, and they follow a pattern: the lower frequency bands fade out first, with higher frequencies succumbing later for 10-20 minutes.

In more severe disturbances frequencies up to 21 MHz or even 26 MHz are affected, and for as much as a couple of hours. The advice is: try higher frequencies, but if these become affected too, tune back to the usual frequencies and wait for the disturbance to pass - the bigger frequencies will be the first to return to normal.

Don't blame the receiver - it's just a touch of the sun!!

by Andrew Piper (Note from Editor: This item was given to me by someone whose name I have forgotten!! In fact, several articles may not be acknowledged mainly because they are given to me at meetings, and I usually forget to write down the name of the donor. Sorry!!!)

Wanted - more articles for QSX-PE, particularly some Afrikanians articles, or someone to translate. Please pop them in an envelope (with your name on!) and give or send them to me.

ON MEASURING SIGNAL STRENGTH AT THE RECEIVER

The most obvious use of the S-meter is in making R-S-T-reports. To be sure, such reports are often made merely to satisfy the curiosity of the operator of the transmitter, but they can be extremely useful as well. For instance, when a transmitter is being adjusted, or antennae changed, it is far more useful to know that power is up 3db than to know that the signal is 'quite a bit louder'. One is apt to be suspicious of the latter report when several days elapse between tests. Also, much is being done to keep track of the vagaries of radio waves. Some day we will know much more about the effect of sun spots, and movements of the Heaviside layer and so forth, than we do now. When that day comes, we suspect that a lot of credit will go to amateurs who have kept an accurate log of signal variations from reliable transmitters.

For this kind of work, records in db are more useful than in S units, because nobody knows just how large an S unit is. In calibrating the meter, we made each division from 1 to 9 represent a power ratio of two to one, or 3db (approximately). This agrees pretty closely with what the average amateur thinks an S unit is, as we found by checking up on actual signals. In addition to being less arbitrary, such a scale has the great virtue of being easy to convert to db, it merely being necessary to multiply by three.

A meter calibration in microvolts does not mean much. In spite of this, many amateurs desire such a scale and a calibration curve is printed in each instruction book. For the benefit of those who have lost theirs, it is reproduced in this article. The calibration was obtained by connecting the receiver through a standard dummy antenna to a standard signal generator. The ordinates represent micro-volts across the input terminals under certain load conditions, and have no simple relation to the absolute field strength. For this reason, we do not think it means much, and for this reason, we have not calibrated the meter itself in microvolts.

The fact of the matter is that readings are influenced by so many variables that it is impossible to measure the absolute signal strength in any direct manner. Even if the antenna were calibrated, and an R.F. voltmeter could be made so sensitive that it would measure voltage on the antenna, its readings would be mostly meaningless because they would indicate the general noise and interference level rather than that of any particular signal.

Consequently the measuring device must be connected at (or near) the second detector in order to obtain selectivity as well as sensitivity, and in order to make absolute measurements it is necessary to correct for the selectivity (sideband suppression, etc.) as well as for the overall gain of the amplifier. All of which becomes so complicated that the best way to make absolute measurements is to compare the unknown field with a known radiation from a standard signal generator. For purposes of comparison, the problem is much simpler. With the measurements made at the second detector, the loudspeaker can be used as a monitor to make sure that the noise level is low enough and that the sidebands are coming through. Overall gain of the amplifier is taken care of with sufficient accuracy by the design of the meter.

This last is a story in itself, and we will only touch on it briefly. Since the set is normally used with the AVC in operation, the meter is designed accordingly. With an effective AVC, such as used on the HRO, the carrier strength is practically constant at the second detector throughout the working range. The problem is therefore to design the meter to measure the gain of the amplifier. The mathematical expression for the gain per stage of a receiver is quite complicated but in a given well-designed receiver many of the terms become constants and the gain is determined by the tube constants, particularly the mutual conductance. Taking another long jump, we found that if a correction was made for the plate voltage, the D.C. plate current was a measure of the gain. In the actual circuit used in the receiver, the plate circuits of the tubes are made one arm of a Wheatstone bridge, the other arms being resistors, and the meter being the null indicator. Careful tests have shown this arrangement to be surprisingly accurate, even though it may sound like a 'reductio ad absurdum' to hard-boiled theorists.

by James Millen - QST, April 1936.



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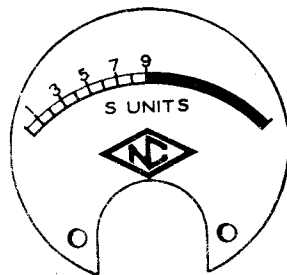
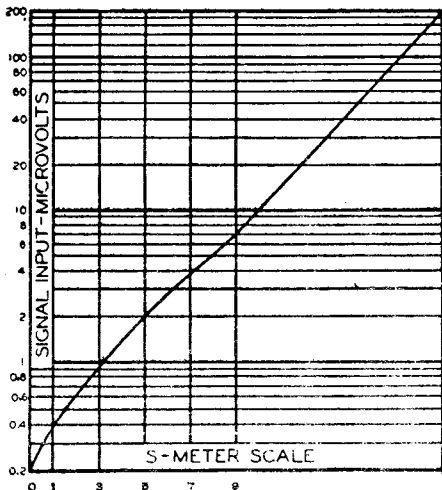
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H A M N E T N E W S

QUESTIONNAIRES

I have received sixteen questionnaires to date, a return of just over 50% and would like to thank all those who took the trouble to do so. Anyone who has had to keep name, address and telephone number lists of members, including keeping them up to date, will appreciate how much of a problem this can be and therefore how helpful it is when members make the effort to notify any changes.

HAMNET SIMULATED EMERGENCY CONTEST

A full report on the contest will, no doubt, appear in Radio-ZS in the near future. It is encouraging to see that six of the 23 portable stations participating were from the East Cape, five from Port Elizabeth and one from Humansdorp. The only province to better that was the Transvaal. It would appear that all participants enjoyed the contest.

HISTORYAS SHE IS WROTE!!!!!!

(Student howlers from a collection by teachers in the USA)

The inhabitants of ancient Egypt were called mummies. They lived in the Sarah dessert and they travelled by Camelot. The climate of the Sarah is such that the inhabitants have to live elsewhere. Certain areas of the dessert are cultivated by irritation.

The Egyptians built the Pyramids in the shape of a triangular cube. The Pyramids are a range of mountains between France and Spain.

The Bible is full of interesting caricatures. In the first book of the Bible - Guinesses - Adam and Even were created from an apple tree. One of their sons, Cain, once asked: "Am I my brother's son?" Moses led the Hebrews to the Red Sea, where they made unleavened bread, which is bread made without any ingredients. Afterwards Moses went up Mount Cyanide to get the 10 Commandments.

History calls people Romans because they never stayed in one place for very long. At Roman banquets, the guests wore garlics in their hair. Julius Caesar extinguished himself on the battlefields of Gaul. The Ides of March murdered him because they thought he was going to be made king.

The sun never set on the British Empire because the Empire was in the East and the sun always sets in the West. Queen Victoria was the longest queen. She sat on the thorn for 63 years. Her death was the final event that ended her reign.

The 19th Century was a time of many great inventions and thoughts. The invention of the steamboat cause a network of rivers to sprint up.

Cyrus McCormick invented he McCormick raper, which did the work of a hundred men. Samuel Morse invented a code for telepathy. Louis Pasture discovered a cure for rabbis. Charles Darwin was a naturist who wrote "The Organ of the Species". Madman Curie discovered radium. Karl Marx became one of the Marx Brothers.

The First World War was caused by the assignation of the Arch-Duck by a surf. It ushered in a new error in the anals of human history.....

P O R T E L I Z A B E T H B R A N C H
COMMITTEE

CHAIRMAN	Marge Weller	ZS2OB	30-4597
VICE CHAIRMAN	Brian Weller	ZS2AB	30-3498
SECRETARY (Minuting)	Dick Schonborn	ZS2RS	55-2244
SECRETARY (Corres)	Colin Ashwell	ZS2AO	31-2471
TREASURER	Colin Robertson	ZS2CTR	30-0570
RALLIES/SOCIAL	Beavan Gwilt	ZS2RL	30-6968
SPECIAL EVENTS	Dick Schonborn	ZS2RS	55-2244
AWARDS	Bill Hodges	ZR2AAN	51-2580
HAMNET	Al Akers	ZS2U	30-2983
EDITOR - QSX-PE	Marge Weller	ZS2OB	30-4597
REPEATER WORKING			
GROUP - CHAIRMAN	Trevor Scarr	ZS2AE	32-1746
LIBRARIAN	Colin Ashwell	ZS2AO	31-2471
PACKET WORKING	Lionel Coombe-		
GROUP CO-ORDINATOR	Davis	ZS2DD	32-1770

BULLETIN ROSTER

Bulletin readers please refer to your Roster Sheet.

SUNDAY BULLETIN INFORMATION

Primary Frequencies for bulletins at approximately 08.40a.m.
H.F. 7098 kHz in 40 metre band. VHF 145,100 MHz - Ladies Slipper
Repeater

BRANCH V.H.F. SERVICES PROVIDED

Town Repeater (P.E. Central)	145,050 / 145,650 MHz
Grahamstown Repeater	145,150 / 145,750 MHz
Lady's Slipper Repeater	145,100 / 145,700 MHz
6 meter link with above	51,400MHz (simplex)
Cockscomb Repeater	145,000 / 145,600 MHz
Kareedown Repeater	145,075 / 145,675 MHz
University Repeater	145,175 / 145,775 MHz
6 meter beacon (ZS2SIX CW 1d)	50,005 MHz
2 meter beacon (ZS2PE CW 1d)	144,910 MHz

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