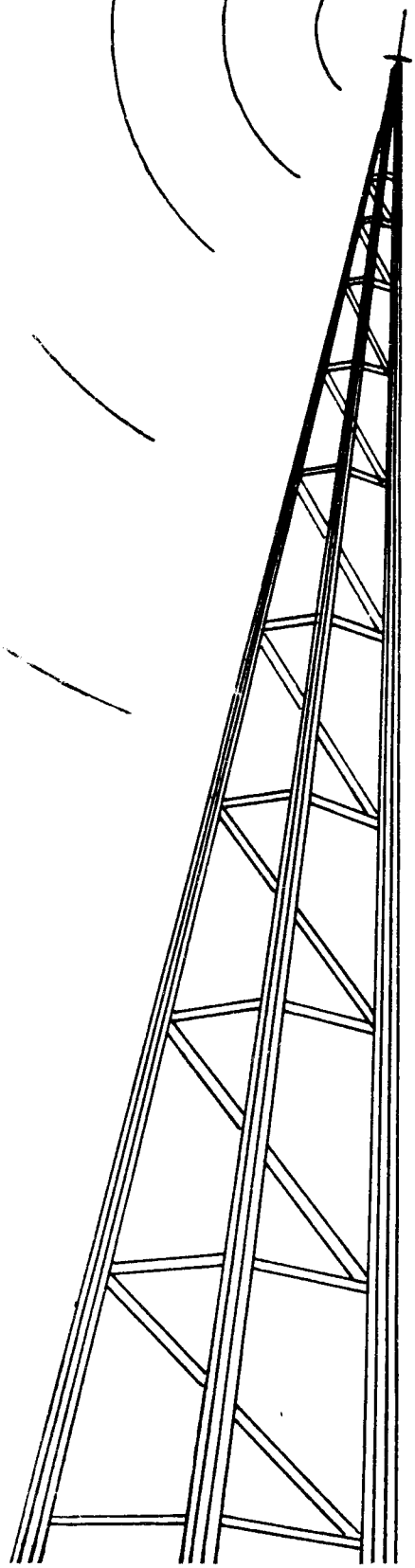
T N SCARR

# 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.

## PORT ELIZABETH BRANCH.

THE NEXT MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE WILL TAKE PLACE AT THE Y.M.C.A., HAVELOCK STREET, PORT ELIZABETH ON FRIDAY 18th APRIL, 1980.

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## AROUND AND ABOUT.

We would like to welcome back to Port Elizabeth, our Chairman Dick ZS2RS and his wife Gay after their trip to Pretoria for the Annual General Meeting of the League. We trust that they had a good trip and an enjoyable time at the meeting and various functions. There seems to be a move afoot to present Dick with a trophy for "Bulletin Reader of the Year", after his sterling efforts at reading the Sunday morning bulletin four Sundays in a row.

Congratulations to Tom ZS2TC of Port Alfred who has been elected as President of the Bathurst Agricultural Society. We are sure that Tom will put as much effort into his work with the Society as he did with his previous work and his ham activities.

We are sorry to hear about a few hospital trips involving the xyls of the Branch. Heather, the xyl of Neil ZS2AI is now out of hospital, and so is Priscilla, the xyl of Jeff ZS2GJ in East London, and we hope that they are going to be 100% fighting fit very soon. Bette ZS2LO the xyl of Cyril ZS2KX was also recently in St. Josephs Hospital for an operation to her knee and we hope she will soon have her rugby boots on again - after all the Lions will be here soon! The holiday in hospital which the Secretary had was very successful and although she is not likely to win any Grand Prix Races, everything is fine and dandy.

We hear that June ZS2JJ and Mike ZS2MJ are proud possessors of a new rig - which turned out not to be the one that Mike ordered a Kenwood TS820S, so back it went into the box and they are now awaiting the correct one. We wish you both lots of happy times on the air when it does arrive, Mike and June.

Congratulations to Selwyn ZS2SS who has now reached his 100 countries with about 50% confirmed. Most of these have been on c.w. Sel is now hard at work on his 6metre rig trying to get it operational.

For those who might be interested, there are two new beacons operational on 10 metres, and 10 metres is really wide open at the moment. YV5AYV is on 28 280 using a horizontally polarised Yagi, which is beamed on Europe from 10.00 tO 22.00 Z, beamed on U.S.A. from 22.00 to 03.00 Z and on VK from 03.00 to 10.00Z. Also operational is VS6HK from Hong Kong on 28 290.

We are sorry to hear from Brian ZS2TY that Louis ZS2KT is not well and hope he will soon be on the mend.

Brian ZS2GF and Lil his xyl have made a move to Johannesburg. We hope you don't forget your old Branch Brian and that we will hear you with a ZS6 call soon.

According to reports, Cyril's classes are going extremely well and some of the chaps are up to quite high speeds already. Keep it up so that you can get your ZS calls soon and talk to the world, as it says on the stickers!

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The next issue of QSX-PE will be made up entirely of contributions from Branch members - are you going to enjoy receiving a blank sheet of paper in the post?

MINUTES OF THE MONTHLY GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD ON 21-3-1980.

PRESENT: A total of 18 members and visitors.

APOLOGIES: ZS2AE, ZS2TX, ZR2BS, ZR2CI.

MINUTES: These had been published in QSX-PE. ZS2KX proposed and ZS2CY seconded adoption.

ARISING: Nil.

CORRESP: Nil due to Secretarys absence.

FINANCE: No movement.

GENERAL: 1) A call had been received from Vi ZS2BR whose callsign had been incorrectly published as belonging to Sheils ZS2BF. She was advised that a misprint had occured.

2) The Chairman reported that Marge ZS2OB was recovering well from her operation.

3) A request was made from the floor concerning the future holding of lectures on TTL logic, RTTY, SSTV, OSCAR etc. The Chairman said that the matter would be looked into.

4) AGM Motions: A letter had been received from the Pretoria branch advising the various costs attached to the AGM. It was felt that these costs were rather high, and the Chairman espressed concern at them, and wondered whether it was worthwhile attending, but the Branch still has to pay its share of costs whether or not a delegate is sent. The meeting was asked to decide whether a delegate should be sent. Peter ZR2CJ proposed Dick ZS2RS and Brian ZS2TY seconded the proposal. It was agreed that Dick would attend. Andre ZS2BK was elected as an alternate delegate.

The motions were then discussed and the meeting decided as follows:

1. Agreed
2. Agreed
3. Agreed
4. Opposed
5. Agreed
6. Delegates discretion
7. Opposed
8. Opposed
9. Opposed
10. Opposed
11. Agreed if Mot.14 fails
12. Delegates discretion
13. Agreed
14. Agreed
15. Opposed (Should keep quiet on
16. Opposed these points)
17. Opposed
18. Ultra vires as printed.
19. Chairmans discretion
20. Generally opposed but depends on motivation Chairmans discretion.
21. Agreed subject to rules which apply.
22. Will probably fall away.
23. Agreed
24. Agreed
25. Opposed
26. Agreed
27.) If 26 carried then these
28.) will be discussed, otherwise
29.) they will probably fall away
30. Agreed
31. Chairmans discretion.
32. Agreed, but probably will not find ready sponsorship.

There being no further business, the meeting was declared closed.

sgd.
R.W.Schonborn ZS2RS
Chairman.

sgd.
B.A.Weller ZS2AB
act. Secretary.

## CONSTRUCTION - FILTER OUT THAT T.V.I. PROBLEM.

The number of instances where radio transmitters are causing interference to other services, or the entertainment world, is gathering momentum. Television, tape recorders, high quality amplifiers and even medical instruments are running the gauntlet.

It is interesting to look at the signals required by the television receiver for its operation. Two signals are required, the audio with a bandwidth of 50 KHZ, the video signal with a bandwidth of 5500 KHz (625 line system). An amateur signal should not be broader that about 6 KHz.

Now for this receiver to operate satisfactorily it must have a b r o a d band input stage, the reason many strong signals cause interference. In the presence of strong signals the RF stage overloads and will generate many spurious signals - some of these signals will breakthough and cause sound bars, cross hatching and/or audio interference. It is easy to prove the TV set is the culprit by trying other channels. Interference can be picked up by the TV set via the Tv antenna, the mains feed to the TV or by the TV set wiring inside the set. By a matter of eliminating it will be proved how the interfering signal enters. The interference will stay on if the TV antenna is removed, then interference enters by the mains, the other way around for the antenna. Internal pickup can be checked by bringing your hand near the TV cabinet and moving the hand around the outside, also touching metal decorations or operating some controls. (Only try this while the interference is on.)

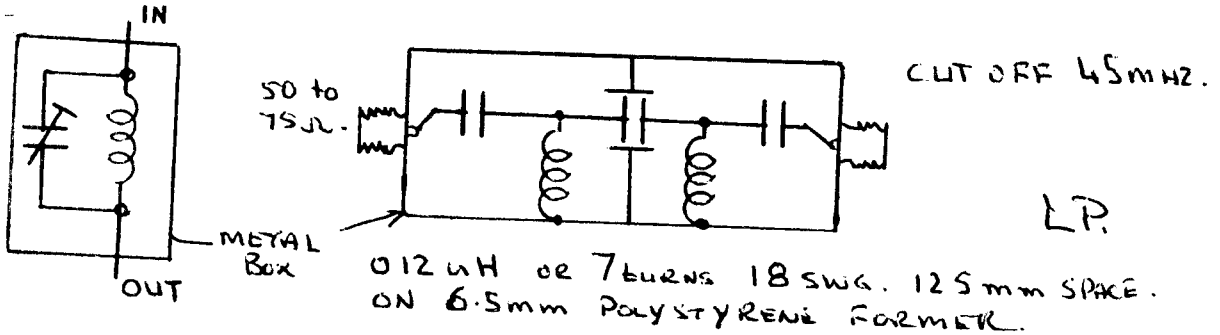
Once it has been established where the unwanted signal enters the TV must now be helped to reject this signal. This could best be done by filters. There are many filters available commercially, but they are normally in the form of high pass or low pass and can not be resonated on a spot or channel to suppress just that frequency. Always fit the filter near the stage that is interfered with.

A list with data to make traps for the Amateur bands is shown below.

| | | | |
|---|---|---|---|
| 1,8 MHz | 25 mm long winding | 30 swg on a 25 mm former. | 75pf trimmer. |
| 3,5 MHz | 42 turns | 30 swg on 25 mm former, | 50pf trimmer. |
| 7,0 MHz | 23 turns | 24 swg on 25 mm former. | 50pf trimmer. |
| 14 MHz | 10 turns | 24 swg on 25 mm former. | 50pf trimmer. |
| 21 MHz | 7 turns | 24 swg on 25 mm former. | 50pf trimmer. |
| 28 MHz | 4 turns | 24 swg on 25 mm former. | 25pf trimmer. |
| 50 MHz | 3 turns | 24 swg spaced 12,5 mm on 25 mm former. | 25pf trimmer. |

The trap made from the above data must be inserted in series with the feed bringing in the interference. See circuit below.

A filter that could be installed in the TV feed line, if the interference enters here, is shown below. Instal in a metal box and for convenience fit co-ax plugs.



*L. E. Harrington WØLM*
*585 S. Alton Way – 11C*
*Denver CO 80231*

# A New Approach To Nicad Care

## —charges up to ten at a time

Is this going to be cheap? How about $1.75 for the two components required, besides the usual transformer, rectifier, and filter capacitor needed for any charger? Is it perfect? Connect any reasonable number of nicad cells (0-10) between the charging terminals, and the current will vary only a small fraction of a milliampere. The design is so simple that I think my brother-in-law could handle it.

Fig. 1 shows the schematic. The circuit and design data are given in the National Semiconductor *Voltage Regulator Handbook*, available at Radio Shack stores. Don't rush out and buy the book for this information, though. Herewith I will save you $2.25 on the cost of building your charger. Besides, using the data in the book requires a lot more time and measuring than using the cut and try system, if you have some idea of just what you are doing.

Your dc supply will have to furnish the following: the maximum voltage of the bank of cells you will want to charge and the rated voltage of the voltage regulator you will use plus its dropout voltage. Figure on approximately 30 volts for use with 10 nicads, but don't forget that the maximum you can use with the voltage regulator is probably 35 volts. Also, when using a voltage regulator, you must watch $I(V_{in} - V_{out})$, the power dissipated in the regulator. With a nominal 1 Amp regulator and the current you will draw, there will be no problem here.

I use a small power transformer rated 25.2 volts at .3 Amps, a silicon diode rectifier, and a 220 uF filter capacitor. Under the load you will use, the voltage is 31 volts. With R1 at 300 Ohms, the charging current is 45 mils exactly, when charging anything from one to ten cells. The transformer gets pretty warm, but not too warm. Everything else gets just barely warm. If you intend to charge at 100 mils, use a larger power transformer – everything else can be the same. I suppose you could incorporate a pot and a meter to make an adjustable-rate charger, but be sure to use a limiting resistor if you do use a pot in place of R1. I use a 220-Ohm shunt across the 300-Ohm R1 for a couple of batteries that can use a 100 mils charge. The transformer has to be "heat sinked," too. ■

**Parts List**

| | |
|---|---|
| T1 | 25.2 V at 0.3 Amp (Radio Shack 273-1386) |
| D1 | 1 Amp silicon rectifier |
| C1 | 220 uF, 50 V (Radio Shack 272-1045) |
| VR | 12 V at 1 Amp (Radio Shack 276-1771) |
| R1 | selected to adjust charge rate (in the 300 Ω range for 0.05 A) |
| M1 | suitable for charging rate desired (optional) |

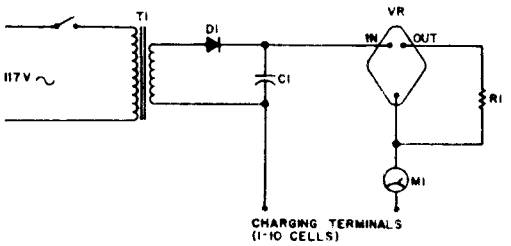
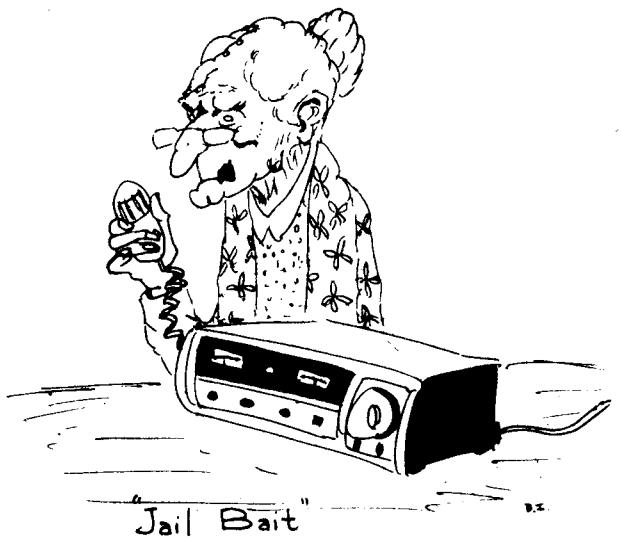



*Fig. 1.*

LAST THOUGHT

Women are more irritable,
Than men, there's no debating.
The reason's very obvious . .
Men are more irritating.



# Make Life Easier

## — with a workbench speed control

*Don Smith W4CQQ*
*5666 Flagstaff Rd.*
*Jacksonville FL 32207*

Drilling holes in different metals often requires the use of a variable speed drill. If you don't own a multi-speed drill, the addition of this little circuit makes your hand drill a variable speed tool.

The bridge rectifier provides the full-wave pulsating direct current for the SCR switch and controls the angle of fire of the SCR. Diode D5 is used to counter the back voltage developed by the drill motor. Speed of the drill is varied by the 10k potentiometer.

Diodes D2 -D4 should be rated at 200 volts piv and have a current rating of at least 12 Amps. The SCR should have a piv of about 300 volts and a current rating of 25 Amps. ■

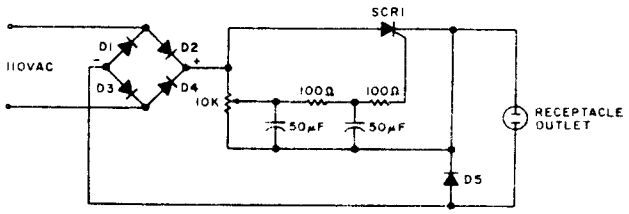



*Fig. 1.*

TEN COMMANDMENTS OF HUMAN RELATIONS

1 Speak to people. There is nothing as nice as a cheerful word of greeting.

2 Smile at people. It takes 72 muscles to frown, but only 13 to smile.

3 Call people by name. The sweetest music to anyone's ears is the sound of his own name.

4 Be friendly and helpful. If you would have friends be friendly.

5 Be cordial. Speak and act as if everything you do is a genuine pleasure.

6 Be genuinely interested in people. You can like everybody if you try.

7 Be generous with praise, cautious with criticism.

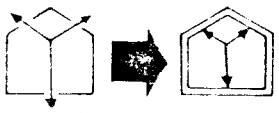
8 Be considerate for the feelings of others. It will be appreciated.

9 Be thoughtful of the opinion of others. There are three sides to any story, yours, the other fellow's and the right side.

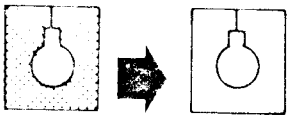
10 Be alert to give service. What counts most in life is what we do for others.

# The Great Energy Waste

## SAVING ENERGY

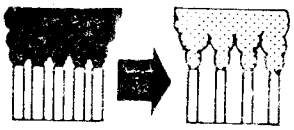


BUILDING INSULATION CAN USE 30% LESS



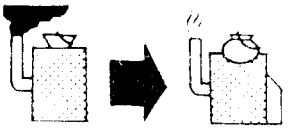
IMPROVED LIGHT BULBS CAN USE 60% LESS

MORE ENERGY – EFFICIENT TRANSPORT – MAJOR SAVINGS



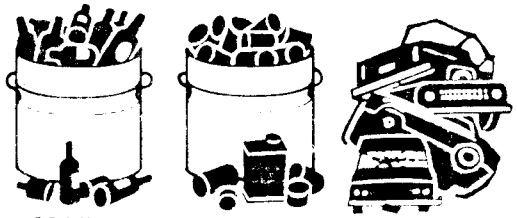
IMPROVED PROCESSES IN INDUSTRY CAN USE 20% LESS

SOLAR AND WIND POWER TAPPED



FIREWOOD – DRYING WOOD AND IMPROVING DESIGN SAVE 50%

## THROWN AWAY IN USA IN ONE YEAR

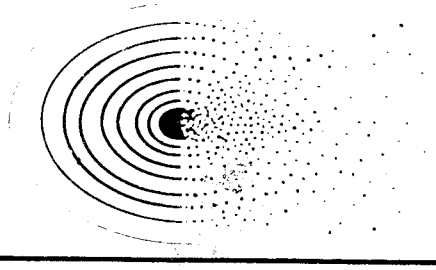


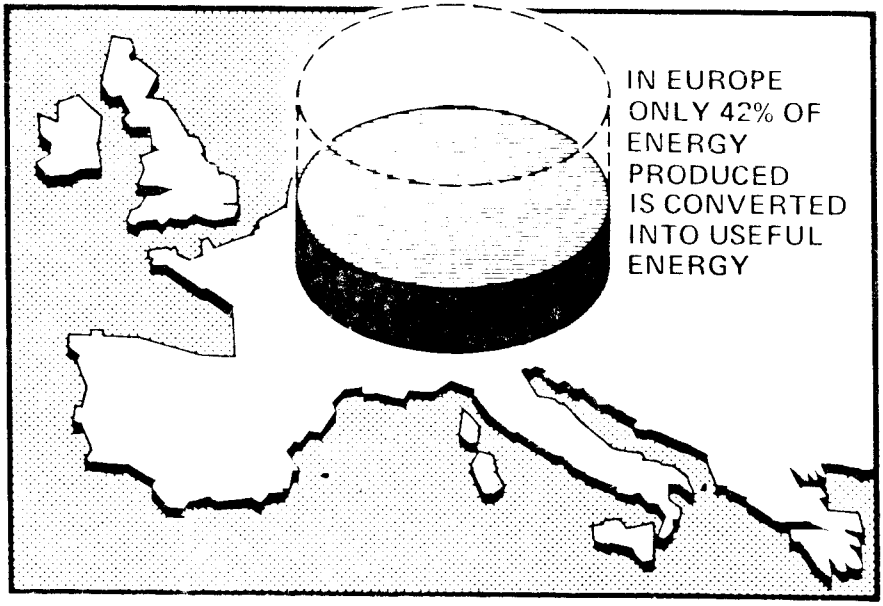
26 billion glass bottles

48 billion metal cans

7 million cars

## HALF OF ALL ENERGY USED IS WASTED





IN EUROPE ONLY 42% OF ENERGY PRODUCED IS CONVERTED INTO USEFUL ENERGY