QSX PE

THIS NEWSLETTER IS PUBLISHED BY THE PORT ELIZABETH AMATEUR RADIO SOCIETY

WEBSITE: www.qsl.net/zs2pe

PO BOX 10402
LINTON GRANGE
6015

DECEMBER 2005

THERE WILL BE

NO GENERAL MEETING THISMONTH

since the season for so many other functions and do's has already arrived.

The next monthly meeting of the Society, therefore, will be on **Thursday, 19 JANUARY 2006**.

However, the WRINKLY Rave goes on!

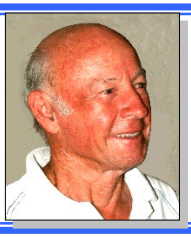
The Wrinkly Ones, at least seven of them, have already held the last monthly get-together for 2005 on 1 December, and will hold their first for the new year on 5 January 2006, hopefully with more participants.

This will, of course, be at Barneys, in Circular Drive, so make a note on your new calendar and come along to the Rave! Make it a regular outing!

The Chairman and Committee of PEARS wish all members of the Society and their families, as well as the President, Councillors, staff and members of the SA Radio League, members of ICASA, and also hams wherever they may be,

a

Merry Christmas and a Happy, Healthy & Blessed 2006

Al 'S  Ad-Libs

Here we are at festive season time again. I wish all members a very merry Christmas and a happy New Year. All those who are ill, I wish you a speedy recovery.

May PEARS grow from strength to strength. Unfortunately it has not been growing lately. *Dying* would be more apt!

About twenty years ago the combined membership of the two PE branches was about 170. An outing like the October outing recently held resulted in an attendance of over 50, which was 65% of branch membership.

Our recent outing figure was 6%. About ten years ago members boasted that we were the premier branch. We can hardly say that now, can we?

Some of our members are doing sterling work, for which we should be grateful. What about the rest?

I am hoping that one of our new years' resolutions will be to support club activities, starting with the PEARS VHF/UHF contest in January.

Even if you do not enter the contest, at least come on and give the contestants a contact. I am sure they will appreciate this a lot.

On Saturday, 19th November we conducted a transceiver test for ZR/ZS upgrading. We had a total of eleven people present and it was a most enjoyable occasion. I wish our other activities could be so well supported.

Here's hoping!

73

Al, ZS2U

The dry spell and high winds we have been experiencing lately have resulted in a number of bush fires, which caused much damage.

Tuesday 8 November was a particularly bad day. Early that morning Theunis ZR2EC phoned me to say that Allan ZS2R was looking for me on the Lady's Slipper repeater. I then became a sort of control station for the day for emergency traffic, with several other hams around also becoming involved.

At the time I did not think that the contributions made by us hams was significant, but later discovered that it was indeed. It made me feel good that we had served a useful purpose.

Tim ZS2X, as also Johann ZS1I at Mossel Bay, were busy firefighting and comms all day.

Otto ZR2VAN drove out to the Lady's Slipper area and reported to me that a fire had started on the West side of the Lady's Slipper mountain and I passed this on to Tim, who was on the East side.

The firefighters there were unaware of this and the warning allowed them time to prepare for it. They were able then to prevent any houses from being burnt down.

At one time Tim asked me to phone the fire brigade about a house being threatened. A shed next to the house burnt down, but the timeous arrival of the fire brigade saved the house.

All vegetation on at least the Southern end of the van Stadens range, of which the Lady's Slipper forms part, was burnt.

A few repeaters were damaged and one I saw was completely destroyed. The fire burnt right up to our repeater, but fortunately it was unscathed, not even blistering of paint on the container.

We have good batteries on this repeater as, after seven days of operation without mains power, they were still going strong.

Thank you to all the hams who assisted with comms and other ways to combat the fires.

73,

Al Akers, ZS2U
Provincial Director:
Hamnet/ECARES

Ultimate DX Ham Map™

This map is now available in South Africa and many of the new ZS hams might find it a good buy. It contains accurate DX call sign prefixes, world CQ zones, common frequency guide, RST system details, international phonetic alphabet and world time zone separations.

A 908x602mm map costs R130, while a laminated one costs R168. A smaller one (648x463mm) costs R100, and R121 if laminated. Packing and postage requires an extra R33.50 for up to 10 maps but those near Peter Hers in Johannesburg can pick them up without P&P.

Peter is available at Peter.Hers@mweb.co.za or by telephone at 083 445 4634. Ω

DudleyForsyth, ZS2AW

Dudley Forsyth ZS2AW is one of our most senior hams today and is still as interested in his radios as he ever was.

Back in the early days, his mentor was the late Pop Brittan, a real pioneer in those days who had a Tuned RF (TRF) receiver using a PM2DX, two valves, and he got Dudley into building one. The parts came from Exley and Co. in Port Elizabeth. In no time the bug had bitten and back in 1936, as a 17 year old schoolboy, Dudley received his first amateur licence – ZU2D.

At that time Dudley also met with the late Schalk van der Merwe, (who was ZS2Y after the war) but back in 1937 he helped Dudley. George McCullogh also had a shop in Port Elizabeth and was able to supply parts for a transceiver. ZS2Y took Dudley to meetings of the League in the city and he then joined the South African Radio Relay League, which eventually became the SARL, having dropped the *Relay* aspect.

The late Norman Jervis ZS2F – some of you may remember the voice – helped him with a self excited oscillator – no crystals, as unstable as anything with a lovely chirp on CW. He came on the air with that, working the Ws and later went from a type 45 valve to type 10. That was *big* power – 20 watts or more with an HT of 500v.

And then the need arose for a better receiver, which came in the shape of a Hallicrafter's Sky Buddy, which he bought from Bill Jack at GM. It was not much better than the home brew TRF!

Came the second World War and, although September 1939 saw the start, hams were closed down only in 1941.

Dudley was called up in 1939 and joined up with 2 Infantry Brigade and went to Potchefstroom, where he met up with 30 other types to form the 6th Brigade Signal Corps. He was sent to Cairo in 1941 and was captured in Tobruk in 1942. He then went to many POW camps in Sardinia, Corsica, Italy and all over Germany, finally working in a sugar factory near Leipzig.

When 1945 came, the prison camp was dissolved and the guards all left, so he and friends spent over two months going towards the coast in search of allies and finally met up with General Patton's group. He was flown out to Belgium and then to the United Kingdom, and finally back home to Port Elizabeth in July/August 1945.

Some of the chaps with whom Dudley became friendly was Frank Burrell, Frank Johnson, Ronnie Lamson, who broadcast music to PE in the early days of the King Edward Hotel, as well as Sam and Harry Polakov and Bob Posselt, who most will remember was blind.

Dudley got a job with Hubert Davies in Port Elizabeth and retired from there in 1959. He then joined Rhodes University as a Technical Maintenance Manager until finally retiring. Ω

SOCIAL NEWS

Congratulations to the following who passed the transceiver operational test on Saturday 19 November: Ashley ZR2AG, Basie ZR2BA, Henry ZR2HPD, Johan ZR2JLP, Gary ZR2LG, Martin ZR2MR, Vernon ZR2WC and Bill ZR2WJA. One step nearer to that ZS call.

I plan to organize circuit diagrams of a simple transmitter and simple receiver for January QSX for those who choose the construction option for their ZS licence.

RAE

At the radio amateur examination held on 17 November we had two candidates writing, namely Vaughn Luppnow and Erich Rohwer. Both of the chaps passed their exam and we look forward to working them on the bands.

THINK OF THESE THINGS...

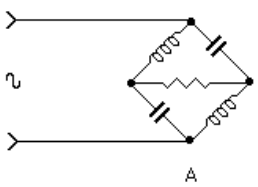
It has been suggested that we change the date and perhaps time of our meetings and even a change of place was mentioned. There have been thoughts about Friday evening or Saturday afternoon, and there was a suggestion of our using facilities at the Mothwa Haven for our meetings.

Something to think about and come along to the January meeting with ideas...

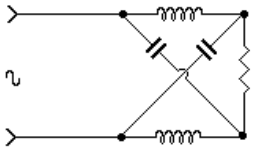
A Couple of Twisters for Christmas

(1)

What is circuit A called?



A



B

And what is Circuit B called?

(2) Three resistors, A, B and C are connected in parallel. With a 12 volt battery connected across the resistors, a current of 5,5 mA flows.

Resistor B is 50% the value of A and resistor C is 50% *greater* in value than A.

What are the three resistor values?

Answers next month.

What Does Santa Claus Do?

(Answer to last month's question)

Well, the last thing that Santa Claus does before he sets off to deliver Christmas presents is to give his reindeer plenty of Red Bull to drink, because Red Bull gives them *Wiiings!* Ω

80M / 40M ZR – ZS HF RECEIVER

by Johan Terblanche ZS1I

This 80M / 40M ZR – ZS HF RECEIVER is a general-purpose direct conversion HF receiver. The receiver was designed as a research and development project for radio amateurs. This project conforms to the prescribed procedures for Class A1 (ZS) licence assessment as required by the Radio Regulations. Build this project and "transform" that ZR callsign to the sought after ZS callsign.

INTRODUCTION

You will enjoy the performance of this receiver and you will experience the satisfaction of constructing your own amateur radio "artwork". I think they call it a sense of achievement. I looked at many other direct conversion receiver designs, but chose this one for the mere fact that this receiver combines the "Old" and the "Not so Old" construction technique. It is not just a matter of "sticking" the components in the holes and soldering them into place. No, you turn your own coils for the 80m and 40m band and you have the option of altering the receiver to suite your personal needs.

Let's not waste anymore time …..read on!

We use the TDA7000 FM Receiver chip as a two-band, 80 and 40 meter, CW and SSB receiver. But how can you use an FM chip on CW and SSB? We only use the oscillator and mixer sections as an on-frequency product detector or direct conversion receiver. Performance exceeds existing designs using the NE602 or the later NE612 IC chip.

Direct conversion receivers using the NE602 IC chips were quite popular some years ago. Basically a double-balanced mixer with an onboard oscillator and associated regulator components, the NE602 in combination with a 50 or 250 mW audio amplifier makes an excellent direct conversion receiver with only a minimum of support components. Examples of such receivers are: The Neophyte, Ramsey HR-8080 and the Sudden Receiver.

Direct conversion receivers using the NE602 and LM386 do have a couple of drawbacks. Firstly the NE602 or NE612 is quite hard to come by in South Africa and if you do find a source, you will have to fork out a lot of "R" for this IC. Another serious drawback is the lack of dynamic range.

Most designs provide for an attenuator pot on the input. The operator must constantly ride the gain. You will also find that the stronger signals drive the NE602 into distortion while the NE602 with an LM386 audio output stage has insufficient volume to drive a speaker to a comfortable listening level. Finally the NE602 has a maximum voltage rating of 8 volts.

Now lets look at the TDA7000. This IC operates at 12 volts. This in combination with an LM386 output stage, has plenty of audio to drive an 8 to 10 cm speaker. Front-end overload is not a problem.

The TDA7000 was designed as a receiver frond end for home telephones, radios and the like. The NE602, on the other hand, was designed as a second IF for cellular phones where it operated in a more steady condition. The TDA7000 is an 18 pin dip with a mixer, an oscillator and two op amps for audio frequency (70 kHz) IF stages, muting, and FM detector stages.

CONSTRUCTION

The receiver presented here was built on a PCB with dimensions of 12cm x 8cm. The cabinet you use must be big enough to accommodate a reasonably sized dial, possibly a 365pF air variable capacitor and room to operate the controls. An alternative for the 365pF capacitor is to use a 440 pF NTE618 varicap diode and a potentiometer.

The main tuning dial is a vernier drive with a pointer. The dial drive and tuning capacitor are a matter of builder's choice. Band switching is accomplished by switching only the VFO coils. The two-terminal oscillator circuit of the TDA7000 simplifies this. A second varactor diode tunes the antenna coil to the desired band.

Coils

The winding and construction of the three coils is very critical and the utmost care must be taken to do it correctly. Failure to wind and construct them correctly, will result in the receiver not receiving the desired frequencies.

Coil Values:

L1 – 5T 24 AWG scramble wound on L2

L2 – 35T 24 AWG close wound on 10 mm dia form

L3 – 27T 24 AWG close wound on 10 mm dia form

L4 – 10T 24 AWG close wound on 10 mm dia form

With the values shown, the receiver will tune from 3 to 11 MHz

To wind the coils you have to glue the first turn down, leaving 10mm of wire facing away form the coil. I use hot glue for gluing but super glue will also work. Wind the coil with the required amount of turns and glue the other end.

Bend the copper wire down so that all the ends face towards the PCB. Scrape the varnish (insulation) of each wire with a sharp cutting knife (10mm each end). Place coil on PCB as indicated in the component diagram and solder.

It may seem strange not to have any adjustment on the coils or trimmer capacitors for calibration, but once you have the VFO in operation it only takes a few minutes to adjust the tuning range by peeling one turn at a time off the coils or soldering fixed values of capacitance to raise or lower the tuning range.

Lowering the inductances by peeling off turns raises the frequency and increases the range of bandspread from minimum to maximum capacity of the VFO capacitor. Adding capacity in parallel to the VFO coil produces the opposite effect.

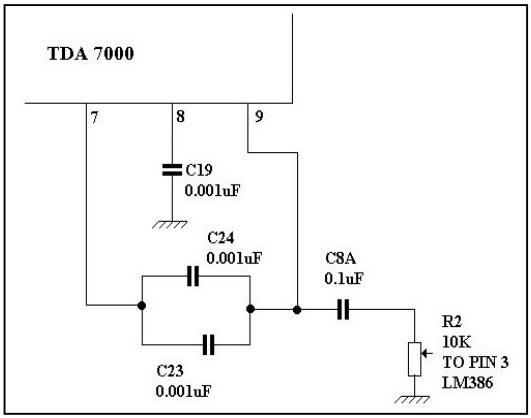
You might have to desolder the 80 and 40 meter coils several times to shorten the coil length. Take care not to burn the PCB when desoldering. Mount the coils vertically by gluing the ends to the PCB. Make sure that the coils do not touch each other as this will result in added inductance/capacitance which we don't want.

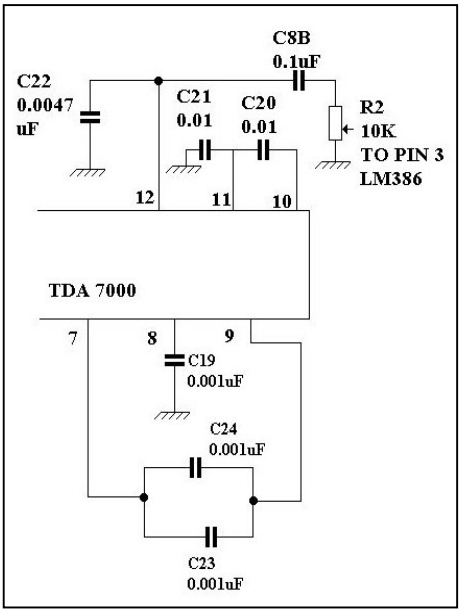
The winding of the coils and alignment thereof is quite time consuming. Take your time and don't be in a hurry. The correct winding and alignment of the coils will ultimately result in a working receiver in the desired frequency range.

Alternatives

I used one of the op amp IF stages in the TDA7000 for audio selectivity, then later both op amps. See schematic diagrams marked (A) and (B).

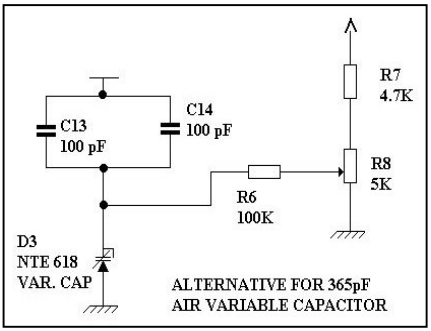
(A) is a Salien-Key low pass filter with a cutoff





(A) – Salien Key low-pass filter ▲

(B) – Bandpass filter ▶



◀ *Alternative for 365pF air variable*

frequency of 2000 Hz, while (B) is a bandpass filter. Components were selected to give a bandpass of 300 to 2500Hz for SSB reception.

NOTE: USE ONLY C8 IF NO FILTER IS USED. C8A for the low-pass filter or C8B for the bandpass filter.

PERFORMANCE

Minimum discernible signal is less than 0.2 microvolts. Stability is quite good. All capacitors used in the frequency-determining circuits must be of good quality. Use polystyrene or silver mica types if you wish. Overall this receiver is the best direct conversion receiver I have ever built.

FINALLY

Have fun with this project. I am sure that there is room for improvement but the intention with this project is to make a kit available to ZRs who wish to upgrade to ZS licences.

I do not claim originality for the design of this project. The writing of this manual, article, drawing of the schematic diagrams, new layout of the printed circuit board, list of components and photographs were however compiled by ZS1I.

ACKNOWLEDGEMENTS

The '80M / 40M ZR – ZS HF RECEIVER" project-idea was made possible by the pioneering efforts of Paul Daulton K5WMS, Dave Burke N5KRN, Bill Allsop W5TJY and Johan Terblanche ZS1I

Thanks to Danie Landman ZR2GE and Johan Landman ZR1EJ for the interest shown in this project and to ultimately "transform" that ZR callsign to the ZS callsign.

ORDERS:

Kits are available while stock lasts.

NOTE: A comprehensive and fully illustrated step-by-step manual is supplied with each kit to assist the builder in constructing this project.

Contact Person: Johan ZS1I
Telephone: 044 6933136
Email: zs1i@mweb.co.za

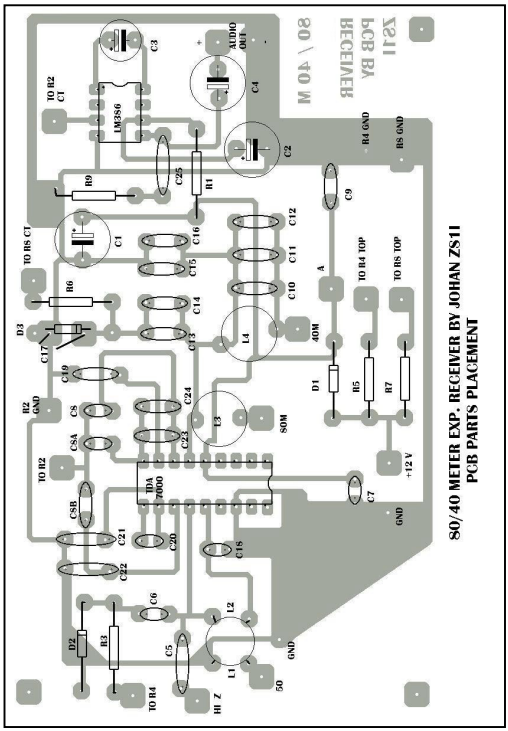
COMPONENT LIST

Resistors (1/4 w 5% Carbon Film):

[ ] R1 100 ohm (Brown, Black, Brown, Gold)
[ ] R2 10K Potentiometer, audio taper with switch
[ ] R3 100K (Brown, Black, Yellow, Gold)
[ ] R4 5K linear potentiometer
[ ] R5 4K7 (Yellow, Violet, Red, Gold)
[ ] R6 100K (Brown, Black, Yellow, Gold) (Alternative to C17 365 pF Cap.)
[ ] R7 4K7 (Yellow, Violet, Red, Gold) (Alternative to C17 365 pF Cap.)
[ ] R8 5K Potentiometer (Alternative to C17 365 pF Cap.)
[ ] R9 10 ohm (Brown, Black, Black, Gold)
[ ] R10 1K (Brown, Black, Red, Gold)

Capacitors: (Polyester, Electrolytic, Mylar or Monolithic)

[ ] C1 220uF/35V electrolytic capacitor
[ ] C2 220uF/35V electrolytic capacitor
[ ] C3 10uF/25V electrolytic capacitor
[ ] C4 100uF/25V electrolytic capacitor
[ ] C5 100pF (101)
[ ] C6 0.001uF (102)
[ ] C7 0.1 uF (104)
[ ] C8 0.1 uF (104)
[ ] C9 0.1 uF (104)
[} C10 100 pF (101)
[ ] C11 100 pF (101)
[ ] C12 100 pF (101)
[ ] C13 100 pF (101) (Alternative to C17 365 pF



Cap.)
- [ ] C14 100 pF (101) (Alternative to C17 365 pF Cap.)
- [ ] C15 220 pF (221)
- [ ] C16 220 pF (221)
- [ ] C17 365 pF air variable capacitor (optional and not included in the kit)
- [ ] C18 0.1 uF (104)
- [ ] C19 0.001 uF (102) (optional filter component)
- [ ] C20 0.1 uF (104) (optional filter component)
- [ ] C21 0.01 uF (103) (optional filter component)
- [ ] C22 0.0047 uF (472) (optional filter component)
- [ ] C23 0.001 uF (102) (optional filter component)
- [ ] C24 0.001 uF (102) (optional filter component)

Diodes:

- [ ] D1 1N4001 silicon diode
- [ ] D2 NTE618 varicap diode
- [ ] D3 NTE618 varicap diode (Alternative to C17 365 pF Cap.)

Light Emitting Diode:

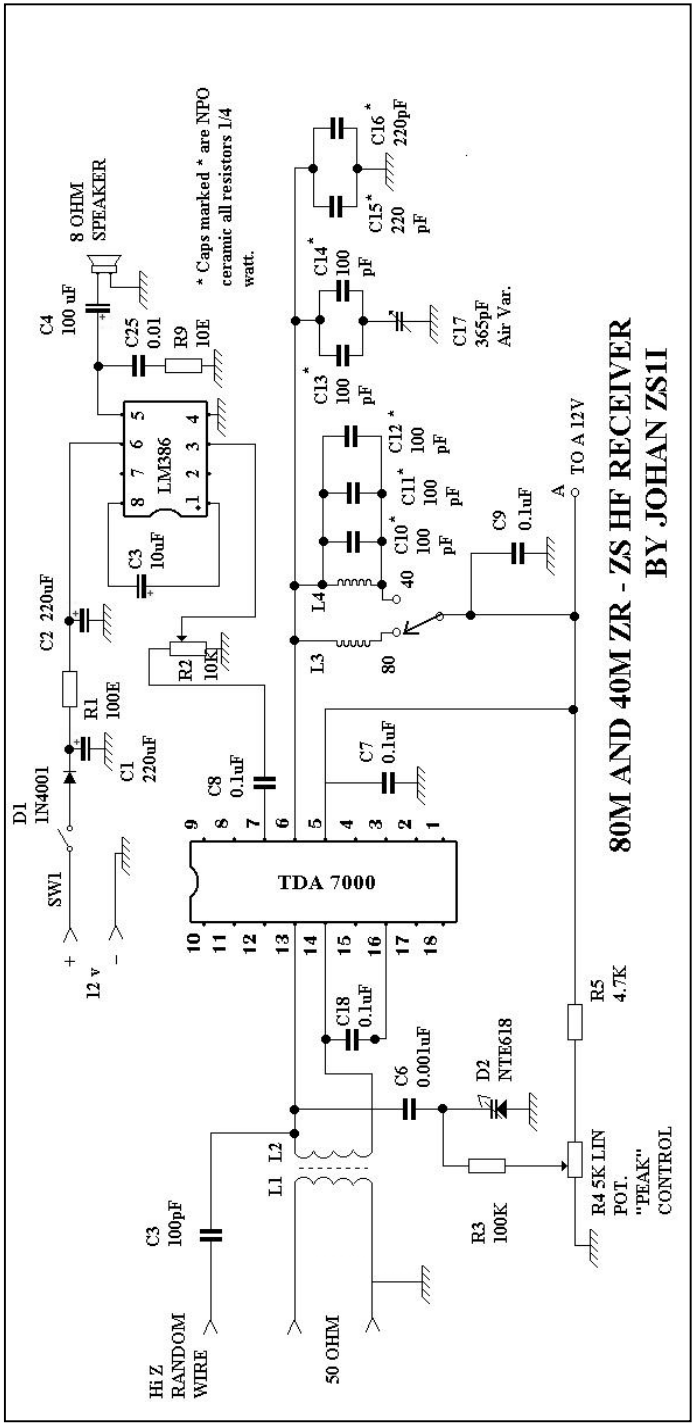
- [ ] D4 Red

Integrated Circuits:

- [ ] TDA7000 FM Receiver Chip
- [ ] LM386 Audio Amplifier IC

Miscellaneous:

- [ ] 18 Pin IC Socket
- [ ] 8 Pin IC Socket
- [ ] Printed Circuit Board
- [ ] Assembly Manual (this document)
- [ ] Stranded wire (connecting wire)
- [ ] Enamel insulated copper wire
- [ ] SPDT (on-off-on) toggle switch



WHICH BATTERY TO USE?

BY VIV MOORE ZS2VM

BATTERIES! BATTERIES! BATTERIES! They're everywhere! With several new battery types coming onto the scene in the last 10 years or so, it's hard to keep up with what's available today! And – even more important – how do they differ from one another, and which is best in your application?

The tried and true standby batteries for hand-held transceivers, video cameras and portable computers have been nickel cadmium (NiCd). For less-portable applications, sealed lead acid (SLA or gel) cells are often used. Today we have nickel-metal hydride (NiMH), lithium ion (Li-Ion), lithium polymer (Li-Polymer) and reusable alkaline.

Each of these types has good and bad features, and selecting the battery for your needs can be a real headache unless you understand those features and how they may apply to your needs. Here, I'll try to shed some light on those subjects.

BATTERY TYPES

Nickel Cadmium (NiCd) –

Mature technology, used where long use life, high discharge rate and reasonable prices are important. Not good where long shelf life is essential.

Nickel-Metal Hydride (NiMH) –

Has been around for about 10 years, offers a somewhat better power density than NiCd, charge/discharge cycles and a lower peak output current (because of higher internal resistance).

Lithium-Ion (Li-Ion) –

A somewhat new technology, really emerging in the last five to seven years, although it has been experimented with for some time. Li-Ion cells provide a much higher power density (power available per unit volume) than NiCd. The downside is that they require very tight control of charge current, charge voltage and discharge to defend against plating metallic lithium inside the battery.

Reusable Alkaline –

Cousin to disposable alkaline cells, reusable alkaline cells are good for low-cost and low-power applications. They're known for having a very low self-discharge rate. Ω

TABLE 1
Battery Type Comparisons

	NiCd	NiMH	Li-Ion	Reusable Alkaline
Energy density	40–60	60–80	100	80
Cycle life	500–1500	500	500–1000	10
Fast charge time	1 h	2–4 h	3–4h	2–3 h
Overcharge tolerance	Moderate	Low	Very low	Moderate
Self-discharge (per month)	25%	30%	10%	0,3%
Individual cell voltage	1,25 V	1,25V	3,6V	1,5V
Maximum load current #	>2C	0,5–1C	1C	0,2C

Cycle life is when full capacity decreases from 100% to 80%. For reusable alkaline it drops to 65%.
The C specified here refers to the cell Amp-hour capacity.

MINUTES OF THE MONTHLY MEETING OF THE PORT ELIZABETH AMATEUR RADIO SOCIETY

held at the St. Hugh's Church Hall, Newton Park, P.E. on 17 November 2005

Welcome:
The Vice Chairman, in the absence of the Chairman on RAE duties, welcomed everyone to the meeting (+/- 35 present).

Present and Apologies :
As noted in the attendance register, including ZS2AE, ZR6ACV, ZR2VDL, ZR2GLP

Acceptance of Previous Meetings Minutes :
Proposed : ZS2RT Seconded : ZR2AG.

Matters Arising:
None

Correspondence:
In: Newsletters, returned QSX's
PO Box renewal notice
Change of address notification
Bank statement
Out: None.

Finance:
The Treasurer reported on the Society's financial position, which was accepted by the meeting.

General:
George, ZR2GLP had a quadruple heart bypass operation on Monday 14th Nov at Greenacres Hospital. He was doing well, out of ICU. Meeting wished him a speedy recovery.

Al proposed a meeting day change – the RAE will clash twice a year with the club meeting. Rory asked that members consider the options and a decision can be made in the new year.

Barry promoted the idea of a ZS number plate, with the idea of making the radio ham more visible.

Rory thanked Janet Goosen for the excellent snacks prepared.

The business of the meeting was concluded at 20h17, and the customary cheese and wine snacks were enjoyed by all. Ω

FOR $ALE ★ WANTED ★ SWOP

FOR SALE

* Everything must GO !! – Kenwood TS440S, PSU and on-board ATU – R4000; TenTec Argonaut + PSU + 50W Linear – R750; Yaesu FT208R with base (for spares) – R25;
Transverter 50 MHz with 5W linear – R200; Transmit converter 144 MHz – R100; Receive converter 144 MHz – R50; Transmit converter 432 MHz + 10W linear – R200; Receive Converter 432 MHz – R70; GASFET Pre-amps for 144 and 432 – R30 each;
Crystal Marker + 30 MHz counter board – R100; Counter (mains/nixies!!) 30 MHz – R80; Power supply, homebrew, variable 5A – R50; Mains transformer 1000v 1 amp (new) – R150; Masses of power supply components, HV caps and electrolytics, valves (QQVO3-20A and 6-40A etc.)
— For any of the above, call Norman ZS2XF at 041 933 2488 and make an offer!

WANTED

* I am looking for an FT707. If you want to sell yours, please contact Allan Bowles ZS2BO, at 083 950 2626.

(Some of these items are from SARL bulletins, ZS4BS Dennis Green's HF Newsletter, etc.)

DEATH OF OM KOSIE V51E

V51E, OM Kosie Dubuison, of Outjo, Namibia, passed away recently. He had a tumor on the brain, which eventually had become inoperable.

Kosie was very active on DX and was well known overseas especially on 40 metre DX in the mornings in particular. Many other hams will recall the time that he spent giving them help and advice.

I guess many of our members have worked Kosie over the years, and he will be missed. Our condolences to his family and friends.

MANY THANKS TO JANET

The cheese and wine function at the November meeting was a great success, thanks to Janet Goosen who arranged for all the eats – and how delicious it was! We now know who to get for our future functions!

REMEMBER SA AMSAT'S SATELLITE CONFERENCE

The closing date for submission of proposals and synopsis for papers for SA AMSAT's 2006 Satellite Conference will be on 15 December. There's probably no time now for anyone reading this to do anything about it, unless you have already done so.

EXERCISE DOUBLE BARREL TWO!

71 Signal Unit, HAMNET and the SA Weather Service were to hold a national joint emergency communications exercise on Saturday, 3 December 2005.

The scenario was a simulated severe weather episode whereby normal communications had been destroyed or disrupted.

71 Signal Unit, based in Cape Town, requested the assistance of HAMNET to supply supporting radio communications. 84 Signal Unit in Durban and 7 Signal Group in Johannesburg would also be tasked to assist with supplying radio communications.

Members of the SA Weather Service in Cape Town, Johannesburg, Durban, Port Elizabeth, East London and Bloemfontein would be detached to the participating HAMNET / Military operators to provide expertise and realism to the exercise.

Weather conditions were simulated to include as much of South Africa, Lesotho and Swaziland as possible.

ANOTHER PIRATE*!!*

Jim Martin, MMØBQI reports that MMØQ, the contest call belonging to the Summer Isles Radio Club, has been pirated (mostly on 20 metres CW) a number of times recently. On 24 October, alleged activity was from St. Kilda (EUØ59) and 12 minutes later from the Summer Isles (EUØ92), a journey, which would take, more than 12 hours, while on 31 October the pirate said to be on the Monach Islands (EU-111) (that's how it came across! - Ed).

AFRICAN DX

Pierre-Luc, F5HRH, will be in the Democratic Republic of the Congo between 15 and 22 January 2006. He has currently applied for a 9Q call sign and is waiting for it.

He is not sure at this time what kind of equipment he will take.

More details/information will be forthcoming later.

To those celebrating special days (18 Dec to 21 Jan) we hope you'll

Enjoy Your Day!

... on your birthdays

December

18 Anne Olivier ZR2ABC
20 Marlene Gray, XYL of ZS2G
20 Nina Smetryns, XYL of ZR2SJE
20 Marlene Ashwell, ZR2ED
20 Donald Jacobs ZS2BW
21 Paul de Vos ZS2ABY
21 Ron Clarke ZS2MF
23 Noel Hislop, XYL of ZS2EJ
24 Bryan Marshall ZS1NQ
25 Mike Bosch, ZS2FM
25 Brian Weller ZS2AB
25 Betty Greeff, XYL of ZS2ZG
26 Cygnett van der Walt, XYL of ZS6WDV
28 Elize Laaks, XYL of ZS2HB
28 Allen Lubbe ZS2AEG
30 Lida Ligthelm, XYL of ZS2D
31 Willem van der Walt ZS6WDV

January

6 Brian Prior ZS2AU
9 William Hickson ZR2WJA
12 Bernice Marshall, XYL of ZS1NQ
15 Neil Fulton ZS2MG
15 Ashley Goosen ZR2AG
17 Maxie Crouse ZR2A
18 Dudley Forsyth ZS2AW
20 Barry Murrell ZS2EZ
21 Margaret France ZS2HM

... on your anniversaries

December

18 June and Gert Schwarz ZR2GPC
19 Lida and Dirk Ligthelm ZS2D
23 Noel and Cyril Hislop ZS2EJ
28 Ednna and Clive Swanepoel

January

1 Nellie and Johan van Zyl ZS2Z
2 Julie ZR2EY and Trevor Scarr ZS2AE
2 Chantelle and Linton Rohl ZR2LIN
3 Brenda and Allan Whitehead ZS2R
5 Anne and Brian Prior ZS2AU
9 Pam ZU1PAM and Phil Hopper ZS2PP
16 Cygnett and Willem van der Walt ZS6WDV

In & Out of Hospital: George Pearson ZR2GLP was in for a 4-way heart bypass and has come out looking fine. We hope you'll have an excellent recovery, George.

New ZS Callsign: Paul Galpin, previously ZR6ACV, has upgraded to a full ZS2PG. I suspect there are also a few others but have not had word about them.

Gone Overseas: Pieter Liebenberg ZS2PL has left for Australia for five weeks. Listen for him as he has an Aussie call sign and his new rig. Let us know if you work him! Ω

Your Society's Committee

Chairman	Al Akers ZS2U	360-2983	makers@firestone.co.za
Vice Chair, Awards	Rory Norton ZS2BL	585-9330	rory@commco.co.za
Secretary	Chris Scarr ZS2AAW	368-1344	cvscarr@intekom.co.za
Treasurer; Assets Control	Clive Fife ZS2RT	367-3203	cfife@absamail.co.za
Repeaters, packet,	Chris Scarr ZS2AAW	368-1344	cvscarr@intekom.co.za
Refreshments	Bill Hodges ZS2ABZ	581-2580	whodges@absamail.co.za
Contests	Al ZS2U, Barry ZR2DX, [+ Mike Bosch ZS2FM (581-2425)]		
Other Committee Members	Ewald Bouwer ZS2EHB (933-3482); Glen Cummings ZS2GV (082 411 2743)		
Social, Special Events	Committee		
QSX printing and info	Ashley Goosen ZR2AG	468-0887	ashleygoosen@xsinet.co.za
QSX Editor (ex com)	Garth Laaks ZS2HB	368-1101	glaaks@iafrica.com
QSX distribution (ex com)	Trevor Scarr ZS2AE	367-1746	t&j.scarr@intekom.co.za
Technical Classes (ex com)	Paul Galpin ZR6ACV	372-1779	galpinp@absamail.co.za
Internet Website (ex com)	Barry Murrell ZR2DX	581-3561	zs2ez@axxess.co.za

PEARS' VHF/UHF & Other Services

REPEATERS

Town VHF ..... # 145,050/650
Town UHF ..... # 431,050/438,650
Cockscomb 145,000/600
Colesberg ..... * 431,075/438,675
Cradock ..... * 145,050/650
Grahamstown ..... * 145,150/750
Knysna ..... * 145,075/675
Lady's Slipper ..... * 145,100/700
Noupoort ..... * 431,150/438,750
Uitenhage ..... # 145,075/675

* These form the PEARS long-range 2-metre repeater system, also linked to which are East London 145,775 MHz, George 145,700, Danabaai 145,600, Stilbaai 145,750, Butterworth 145,725, King Williams Town 145,625 and Umtata (438,725 duplex). It is further extendable to Cape Town via the WCRWG system.
# These can also be linked as required.

OTHER SERVICES

Packet Bulletin Board (ZSØNTP) 144,625
Packet Rose Switch ZSØGHT-3,046101 (144,675 in/out) or 046102 (UHF out to BBS) 144,675
2m Beacon (ZS2VHF CW ID, FSK) (horizontally polarized, 20W ERP,) 144,415
6m Beacon (ZS2SIX CW ID) (horizontally polarized, 25W ERP) 50,005
6m Simplex Link with Lady's Slipper 2m Repeater (vertically polarized) 51,400

Sunday Bulletins

PEARS bulletins are transmitted on Sundays immediately after the SARL English transmission, i.e. at about 08:45, on 7098 kHz as well as the 2 metre linked network that provides coverage from Butterworth to George and up to the Free State and their environs. PEARS' 7098 or 3640 kHz transceive facilities are also remotely linked as needed. In addition, the SARL's 40m operations on 7082 or 7066 kHz or Hamnet's 7070 kHz can be remotely patched to the 2m network, in receive-only mode or with full transceive capability for interactive events.

Date	Prepare and Read on 2m Repeater Link
11 Dec	ZS2BL
18	ZS2RT
25	ZS2ABZ
1 Jan	ZS2EHB
8	ZR2GV
15	ZS2U

DIARY DATES

DECEMBER

NO PEARS MEETING THIS MONTH!

15 Closing date for SA AMSATs Satellite conference

JANUARY

5 Wrinkly Rave

*** We like being *your* Society ***