QSX PE

THIS NEWSLETTER IS PUBLISHED BY THE
PORT ELIZABETH AMATEUR RADIO SOCIETY

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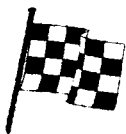
September 1999

NOTICE OF MEETING

The monthly general meeting of the PORT ELIZABETH AMATEUR RADIO SOCIETY will be held on **Friday, 17 September 1999** commencing at 20:00 (8pm) in the Municipal Disaster Management Centre, Westview Drive, Mill Park, Port Elizabeth (Civil Defence Centre).

We will be entertained with a talk by John Lemon on the investigation into the reasons for the then-inexplicable **crashes of the early de Havilland Comet aircraft.** They were the first jet propelled passenger aircraft. (SAA had one of these, which also fell out of the sky somewhere in the Med. area). *This talk of John's is very popular, and he has been asked to repeat it by various bodies – so it will be worthwhile and members are sure to find it very interesting.*

Wrinkly Ravers

The **next rave** will be on **Thursday, 7 October 1999** at the Zwartkops Yacht Club Clubhouse. Hopefully all the other ham activities in the first half of the month (Rally, Field Day, JOTA) will not take its toll on attendance at the Rave, and we hope to see *all* the Wrinkly Ones back in force.

Any time between 12:00 and 12:30 is a good time to arrive.

VW RALLY APPROACHING...

The Rally is scheduled for Friday and Saturday, 1/2 October. The comms organisers are still looking for operators, so please let Al Akers ZS2U know without delay if you will be able to assist on the Friday and/or Saturday. You can telephone him at 360-2983, but even better – complete the enclosed questionnaire and let him have it by post or at the September general meeting at the latest. (The questionnaire has only been included in the newsletters to those who are conveniently located or who usually participate. If you did not get one but wish to help, please phone Al.)

...and Field Day too

Cyril Hislop urgently needs to know who all will be assisting, even for just a couple or hours, during the Field Day weekend ±09:00 on Saturday 9 to ±13:00 on Sunday 10 October. This is a real fun event and all who participate are assured of a happy and interesting stint, whether erecting, operating, logging, brewing coffee or explaining to members of the public who show an interest.

Please contact Cyril at tel. 360-8482 or Al at 360-2983 as soon as possible with details of your availability. Ω

A Word

From the Chair

*S*o what is all this hype about the "Y2K" bug??? Well, it seems the radio amateur fraternity will stand to benefit from the fears and concerns of big business. I don't think mankind has yet stood at the brink of such a potential problem, if one considers the amount of technology that governs our lives, and the single time that it represents. But I am convinced that it is only a hype, and that the time will come and go without so much as the blink of an eye, but with a party unmatched in celebrations, no doubt!

Be that as it may, I am proud to be associated with the radio amateur service at a time like this, where I can call upon what limited services we have to offer, and make them available to "big brother" in the case of their systems failing. And believe me, even these limited communications systems we have will be all that is required to get systems going should the wheels fall off over the new year.

This is an ideal opportunity to get all possible publicity focussed on the emergency capabilities of our hobby, and the willingness with which we serve under disaster or national interest occasions. I urge you then to make yourself available in whatever duty you are comfortable with, so that we can have a list of willing helpers at hand should they be required.

Our repeater network is being rapidly expanded with temporary solar-backed linking sites, to cater for the worst case scenario. This certainly does not mean that I assume things will be disastrous, but I am prepared to guarantee that we will be able to provide prolonged comms in any event.

I think the worst thing about this potential nightmare is the perception in the public's mind – if everybody expects things to happen, they probably will…

73,

Chris ZS2AAW

Emergency Preparedness

The freak storm in Cape Town on the morning of Sunday, 29th August shows us once again that we must not become too complacent about disasters. They can come suddenly, unexpectedly and at any time.

While you need not go overboard on emergency preparedness, it is wise to take some simple precautions. Have a basic medical kit for small emergencies.

One of the most likely emergencies is an electrical power failure. Keep a gas stove to cook food or heat water, and a torch for light. A car battery is always available and can be used for lighting and it can be charged by the car alternator.

Make sure that you always have sufficient fuel for the vehicle.

Another important item is water and here a geyser comes in handy as an automatic means of water storage.

The emergency we are most likely to experience is a vehicle accident. One should at least have a small medical kit, a raincoat and a torch in the vehicle. Other items for consideration are:
- a container of water,
- small tools,
- tow rope and
- jumper leads.
- A crowbar could be handy to pry yourself or others out of a damaged vehicle and may even be of use if dealing with affirmative shoppers!

We hams are or should be well prepared to communicate both at home or when away from home.

73,

Al Akers ZS2U
Provincial Director,
Hamnet East Cape/ECARES

Quoting from the *Orange Free State Civil Defence Amendment Ordinance*, Al ZS2U informs us that "Disaster" means a disaster or state which is not a state of emergency or a state of disaster and which, in the opinion of the administrator or of the local authority concerned, is a disaster, as defined in section 1 of the Act, or is likely to develop into such a disaster."

To be sure, *any* dumbo knows *that!!*

Junior PEARS

Hey there guys and girls. What's happenin out there?

Us young okes, we need to get together so that we can do something to enjoy this really rad hobby of ham radio. You check, ham radio is not just about like chirping into a microphone to some other oke out there but also meeting new guys and girls, experimenting with radio and electronics (which is like totally cool when you find out what interesting things there are out there) and just generally having a jol.

What we need to do is to like get together and have a braai so we can meet each other and also chuck around some ideas of cool things that we can do to make the hobby enjoyable. I got some really cool ideas that I would like to tell you okes so you'll just have to come to the braai to find out. You okes also need to come up with a few ideas on stuff that we can do as well. It doesn't all have to be ham radio related.

OK, so you want some info about where to go:
Date: Saturday 9 October
Venue: Who Knows??? (Chris suggested that we go where the field comp. is. This needs to be confirmed with Al ZS2U)
Time: 18h00 (PE Time)
Bring: Some braai meat and some cool drink

Also bring some of your friends who are like interested in ham radio, who look like they could be interested in ham radio or just want to come and hang out with a bunch of hams.

We will see you there. And if you are not there...the Junior PEARS Mafia will hunt you down and find you!!!

Any questions, then phone Greg (ZS2RE) at home – 583-1483, cell – 082 722-9485 or e-mail – gregre@icon.co.za. Sorry, don't have a fax

If you didn't **understand** this then you are too old!!!

Like cool, my China! I tune you good! I scheme you're gonna like rattle the local hombres and sheilas. That's cool! Gimme a five, man! – like, the Ed.

Note—At the August meeting Greg was given the assurance that the Society would support his endeavours to activate the younger members and attract more young people into the hobby. Ω

HAMNET SIMULATED EMERGENCY CONTEST
1999 – results

Hamnet PE Contest Committee

In the April, 1999 contest there were about 33 participants, only ten of whom sent in logs. As in the past, great fun was had by all.

The organisers inform us that there were some complaints about last minute changing of rules but that, in fact, copies of the rules were sent to SARL HQ and to the National Director, Hamnet during the latter half of 1998. The rules furnished in the blue contest rule book were unfortunately published according to those that applied for the 1997 contest, but which had already been modified for the 1998 contest.

These are not the only contest rules that are incorrect in the contest book. It would seem that the contest committee needs to liaise with the contest organisers in order to avoid confusion, Al reports.

Full results are given below.

Congratulations to the winners, ZS5ACB, ZS2U, ZS6RTB and ZS6XT.

It is a pity there were not more base station contestants, but maybe they were not aware of this category. ▣

Single operator stationary mobile		Single operator portable	
ZS5ACB	1164	ZS2U	1674
ZS5ABD	990	ZS5MC	1212
		ZS2OC	1035

Multi-operator portable		Single operator base station	
ZS6RTB	2457	ZS6XT	600
ZS5WFD	1344		
ZS4BFN	1155		
ZS5WI	1104		

FOR $ALE ★ WANTED ★ SWOP

THANKS!

PEARS wishes to express its gratitude to—

• **Sandy Bartlett ZS2LN** for the years of assistance with the printing and provision of labels for QSX every month at no cost to the Society. Sandy is unfortunately no longer able to undertake the work for us. Many thanks for your help, Sandy!

• **Vic Olivier ZS2SZ for** the donation of an AVO valve tester and valve characteristic meter. The equipment will be held by the Repeater Working Group. Many thanks, Vic!

MINUTES OF THE MONTHLY GENERAL MEETING OF THE PORT ELIZABETH AMATEUR RADIO SOCIETY, HELD AT THE MUNICIPAL DISASTER MANAGEMENT CENTRE, MILL PARK, PORT ELIZABETH ON FRIDAY 20 AUGUST 1999

Present & Apologies: 18 members. Apologies as per the register, including the Chairman Chris ZS2AAW and Mike Bosch ZS2FM.

Welcome: In the absence of Chris, the Vice Chairman Beavan ZS2RL took the chair. He welcomed all, especially our new member Greg Maynard ZS2RE, who took up residence in PE recently.

Minutes of previous meeting: Acceptance proposed by Fred ZS2JS and seconded by Gus ZS2MC.

Matters arising: Y2K: Al ZS2U reported that SATEPSA PE had noted with appreciation the offer of the use of the extensive PEARS UHF repeater backbone system by Eskom in the event of problems at the turn of the century. The proposal was supported by all representatives at SATEPSA. Chris had been flown to Johannesburg to explain the proposal to his Eskom Head Office, who were also impressed with the idea. They had decided to approach other amateur clubs around the country to see whether they could also offer backup facilities in their areas. It was agreed that a PEARS Certificate of Commendation be awarded to Chris.

Finance & membership: Treasurer Clive ZS2RT reported on the happy status of our savings and investment accounts.

Correspondence: Subscription payments, newsletters from other clubs and RADIO ZS for June had been received.

General: The Chairman reminded members of the upcoming film **Contact** which featured amateur radio in the opening minutes.

- **Science Festival 2000:** Agreed we should register now for our participation.

- **Apple Express trip:** it was agreed that Cyril should look into the possibility of a day trip.

- It was also decided to arrange a **visit to Roger ZS1J** near Plettenberg Bay during November – *not* the first weekend, however.

- **Cape Town link:** –The link was through but needs tweeking to overcome noise, probably between Jonas Kop and Riversdale.

- **Field Day:** Al spoke regarding the rules and reported that the best site was the open grass area next to the Sunridge Park shopping centre.

- **Radio Amateur of the Year award:** It was unanimously agreed to nominate Chris ZS2AAW for his work in extending the repeater network as well as the Y2K initiative.

- **QSL Bureau:** Following a proposal by Ken ZS2BWB, arrangements were being made to have QSL cards for PEARS members who so desire to be forwarded in bulk to us for distribution at Society meetings. Cards *must* be collected by the addressees and will not be posted on to them. Only SARL members will, of course, be eligible.

- Viv ZS2VM reported that he had **QST, QEX and NCJ for 1997 on CD disk.** Members may contact him to peruse the contents.

- Garth ZS2HB said that the **PEARS National VHF/UHF contest 2000** would be bigger and better, with the addition of 1296 MHz and a mobile category.

- Neil ZR2NT spoke one the new **GPS/APRS** rage overseas and explained how accuracy could be improved by tying it in with a 2 metre repeater.

- Greg Maynard ZS2RE address the meeting on his desire to **activate the younger members** in amateur radio. He offered to run RAE classes and activities for young people. The meeting supported him and it was suggested that Greg and a few selected members form a committee to pursue the question. Greg was invited to attend our next Committee meeting.

The meeting closed at 21:05 and refreshments were taken, whereafter Al ZS2U gave an interesting talk on the methods used by the SABC to match three AM transmitters to a single antenna.

PEARS TO HELP WITH QSLs

Following a proposal by Ken ZS2BWB a while back, it has been agreed with the QSL Bureau Manager, Len Silberman, that PEARS will accept incoming cards for its members in bulk from the Bureau and distribute them at general meetings. The purpose is to expedite the receipt of cards that might otherwise lie for lengthy periods in the Bureau awaiting a build-up of an economic number for despatch.

The rules are:

1. Those who want to participate in the scheme must be SARL members (to qualify for QSL facilities), and obviously paid up members of PEARS.

2. The Secretary will collect the cards with our normal mail, and bring them to monthly meetings, where participants may collect their cards.

3. Would-be participants must register by giving their names and call signs to the Secretary, Beavan Gwilt, who will make the necessary arrangements with the Bureau.

4. Addressees must collect their cards from the Secretary at the monthly meeting. Cards will not be forwarded on by mail as it would be too costly.

Those wishing to avail themselves of the facility are urged to get their names on the list by the end of September, when the first list will be posted to the Bureau. Thereafter it will be updated from time to time as necessary. Telephone Beavan at 360-6968. ◘

TOO LATE FOR CLASSIFICATION (Oy, we're getting smart, hmm?

SWOP — My Kenwood TS430S **HF transceiver** for Icom HF rig of similar value—Ralph Hall ZS2IV. Tel. 043 745-2644.

Low Cost Spectrum Analyzer

Part 1   Des Herselman ZR2DH

I n this first article we will discuss the analyzer block diagram. In future articles we will have a detailed look at the various building blocks, and give some advice on the construction. The only equipment needed is an oscilloscope, soldering iron, hand tools and a lot of patience. The equipment for setting up will be made available at an arranged venue.

You will notice that the analyzer block diagram looks similar to that of a single-conversion superheterodyne receiver. The IF frequency is 90 MHz. The analyzer will scan from 0 to 60 MHz, or the section of the band as selected by the two controls.

The L-pad is used to sample a small amount of the signal. The signal is then adjusted to the proper power level with the step attenuator. The signal is then taken through a low-pass filter with a 60MHz cut-off frequency. The low-pass filter prevents 90MHz signals from leaking into the analyzer and upsetting it. The input is then mixed with the 90 – 150MHz from the voltage-controlled oscillator (VCO) in the double-balanced mixer. The 90MHz bandpass filter then filters the difference output from the mixer. The bandpass filter provides the required selectivity.

The 90MHz IF frequency is pre-amplified and applied to the log amplifier. The output of the log amplifier is a logarithmic signal strength video for the oscilloscope vertical (Y) axis. The sweep generator controls the oscilloscope horizontal (X) axis, which simultaneously control the VCO.

The tuning range of the analyzer is adjusted with centre-frequency and frequency-span control on the sweep generator. The analyzer is tuned automatically over its tuning range at about 10 times per second. During retrace the video is blanked out.

The power supply provides +24Vdc, +12Vdc, and –6Vdc. The current requirement of the power transformer is approximately 500 ma.
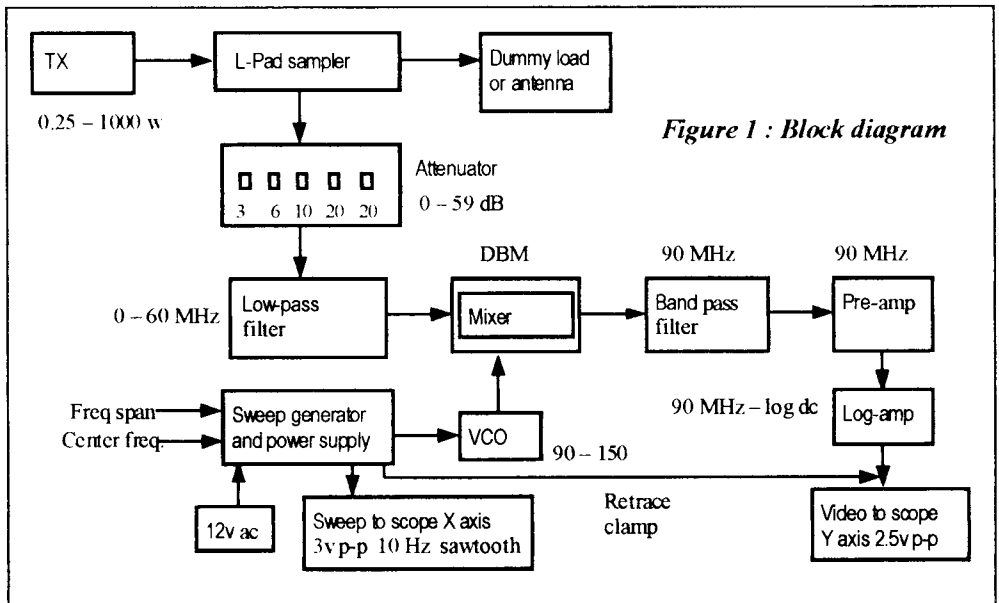

Figure 1 : Block diagram
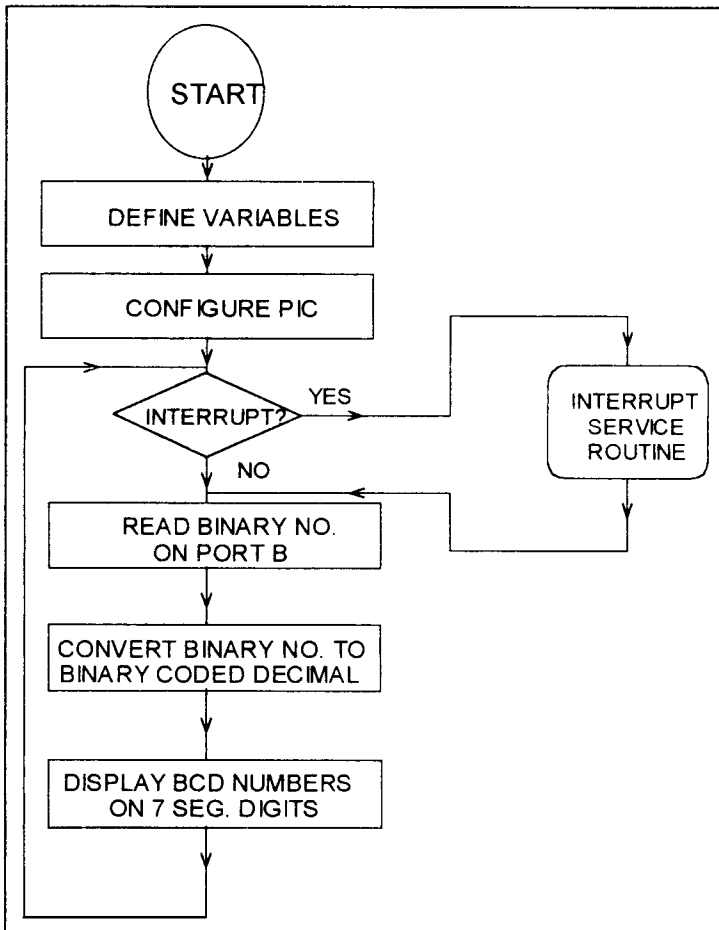
PIC WORK GROUP PROJECT
(Part 2)
By Neil Thomas ZR2NT

Last month I discussed some aspects of the PIC micro controllers and gave a circuit of the first work group project serving as a programming exercise.

Before you write some code for any project, it is always a good idea to get your thoughts straight by preparing a flow diagram. The function of the flow diagram is to help you plan the order in which you are going to write the program. Please note that a flow diagram can be prepared for any activity, even changing a flat wheel on your car.

The detail of the flow diagram depends on your own requirements. Some individuals may need more detail than others e.g. 'Stop the car before you get out!' as a possible first item in the flow diagram. A basic flow diagram for the project may look like the one alongside.

The following is the first part of the program where we define the variables. Always try to make the variable names as descriptive as possible, e.g. rather use 'Digit1' as a name in place of 'D1'.

In the assembler used for the PICs, a comment is

always preceded by a semi-colon ;. The comments in the following section is an attempt to clarify the code.

```
list    p=16F84          ; list directive to define processor

;***** VARIABLE DEFINITIONS

BinaryNo    EQU    0x0E    ;Variable used to save value of binary no.
BankNo      EQU    0x05    ;Use this to set bit 5 in the STATUS register
                          ;to select bank 0 or bank 1
Digit3      EQU    0x0F    ;The location where the binary coded decimal
                          ;for digit no.3 will be stored
Digit2      EQU    0x10    ;BCD for digit 2
Digit1      EQU    0x11    ;BCD for digit 3
Quotient    EQU    0x12    ;The answer (quotient) for the division
Divident    EQU    0x13    ;The value we want to devide
Temp        EQU    0x14    ;A temporary storage register
Bitno       EQU    0x15    ;Used to count the no. of bits during the division
Digitno     EQU    0x16    ;used to hold the register number for the digits
                          ;of our display for the storage of the BCD no's
;Note different way of showing the hexadecimal number in the following EQU's
;The method used is your choice. You can use decimal i.e. 5 or binary B'00000101'
;or hex 0x05 or hex H'5' or H'0005'.

INDF        EQU    .0      ; Indirect file address
FSR         EQU    H'04'   ; Define the File Select Register
PORTA       EQU    H'0005' ; Address of porta
PORTB       EQU    H'0006' ; Address of portb
PortaCtrl   EQU    H'0085' ; Also called TRISA. l prefer
                          ; 'Port A control'
PortbCtrl   EQU    H'0086' ; Also called TRISB
STATUS      EQU    H'0003' ; The STATUS register
_CP_OFF     EQU    H'3FFF' ; Sets code protection off
_WDT_ON     EQU    H'3FFF' ; Enables the watch dog timer
_PWRTE_ON   EQU    H'3FF7' ; Enables the power up timer
_RC_OSC     EQU    H'3FFF' ; Specifies the oscillator as RC
#DEFINE     C      STATUS,0
; The #DEFINE command is similar to the EQU command except that it uses
;characters and not numbers In this case, when C is encountered, it will be
;replaced by 'STATUS,0' This is the carry bit in the status register
```

Next month I will show how to configure the PIC and the first routine that reads in the binary number as set up by the eight switches.

Please note that some of the variables will only make sense as we progress with the program.

If you have any queries I can be contacted by E-mail at: meltek_n@global.co.za or Tuesday evenings on the Lady's Slipper repeater at 19h00. ▣

PSK31 – *The New Digital Mode*

Bryan Haefele. ZS2BH

A new digital mode has been born and seems set to take over from the other digital modes of RTTY, AMTOR, and PACTOR etc. This new mode, PSK31, has the ability to decode the weakest of signals, using the sound card of your PC! It is the brainchild of Peter Martinez, G3PLX, who is also the father of AMTOR.

The name PSK31 is derived from "Phase Shift Keying" and the 31 is the bit rate of 31.25, the decimal of .25 being dropped for abbreviation.

Think of Morse as being a binary code consisting of a short signal (dits) and a long signal (dahs). Morse uses gaps to identify the intervals between elements, letters and words. By combining strings of dits and dahs we can communicate the entire alphabet. Even beginners learn to use the gaps to separate words and characters; they don't need special signals to tell them when a word has ended.

When it comes to RTTY we are still dealing with binary code except we do not use on/off keying: we send the information by shifting frequencies. This is known as Frequency Shift Keying (FSK). One frequency represents a mark (1) and the other a space (0).

If you put enough mark and space signals together you can send the alphabet and limited punctuation. The characters are arranged into combinations of 5 bits. As an example, the letter A is expressed as 00011. To separate the individual characters RTTY must make use of "start" and "stop" pulses.

PSK31 combines the best of Morse and RTTY, and makes use of *varicode*, which uses a varying number of bits for each character. As with Morse, Peter allocated the shortest codes to the most popular letters of the alphabet,

thus the E is gets a varicode of 11. Z, the little used character, gets the varicode of 111010101. Varicode uses 00 to signal gaps so the combination of 00 is not present in any letter or number in varicode

PSK31 uses the DSP capabilities of the sound card to create a shift in phase of 180° in sync with the 31.25 bit data stream. A 0 bit generates an audio phase shift, but a 1 does not. The technique of using phase shifts (or lack thereof) to represent binary data is known as Binary Phase Shift Keying (BPSK). If you apply a BPSK signal to a SSB transceiver you end up with BPSK modulated RF. The RF signal is only 31.25 Hz wide, which is narrower than the average CW signal.

The combination of narrow bandwidth, an efficient DSP algorithm and a synchronized sampling creates a mode that can be received at very low signal levels. PSK31 rivals the weak signal performance of CW and is a vast improvement over RTTY. It has even in fact decoded signals that are not audible on the receiver, the user making use of the software tuning scope to assist tuning!

The software is free for all hams to download off Internet and is not crippled in any way. It has been built into Bob Furzer's – K4CY 's – Logger program as well. For any ham interested they can get the software from Jim ZR2JRD or myself, or download it from the Internet site

It is important that some form of attenuation and isolation from the computer sound card and the microphone input be provided and the following simple circuits will be self-explanatory. All other details are available in the informative program help files.
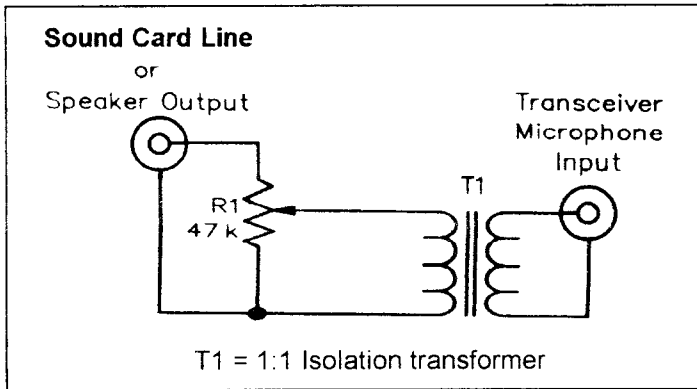
Circuit No 2 shows the PTT interface, but if your transceiver has vox, it is also possible to activate the vox control of your transceiver and as soon as you start transmitting, the rig will respond, in which case you don't even need this interface. Just an isolated connection as in circuit No1 and a connection from the external speaker socket to the soundcard input, using only the tip and earth connection on a stereo plug, would suffice.
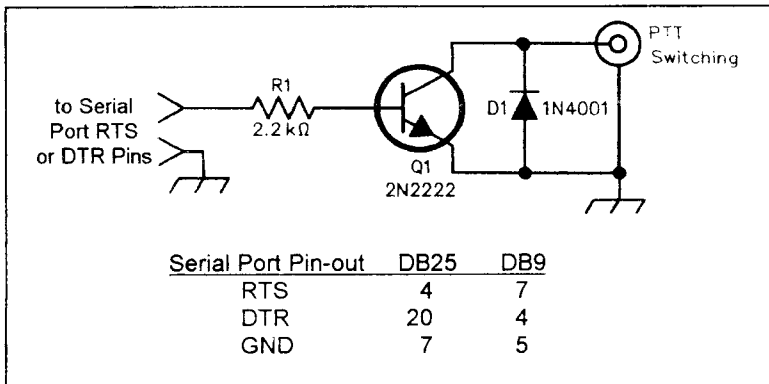
This mode is certainly worth the small outlay and effort to those hams with PCs and running Windows software. Working DX with PSK31 could really be fun. I hope you enjoy it! Ω

Circuit No 1 – Connection to Microphone Input

Sound Card Line
or
Speaker Output

Transceiver
Microphone
Input

R1
47 k

T1

T1 = 1:1 Isolation transformer

Circuit No 2 – PTT circuit from RS232 Port

PTT
Switching

to Serial
Port RTS
or DTR Pins

R1
2.2 kΩ

D1 1N4001

Q1
2N2222

Serial Port Pin-out	DB25	DB9
RTS	4	7
DTR	20	4
GND	7	5

PROGRAMS FOR AFRICA
for the radio experimenter
from the 1997 ARRL Handbook Companion Disk

Some months ago, the Society purchased the 1997 ARRL Handbook, with which came their Companion Disk Version 1.0, a stiffy loaded with software covering a wide range of ham interests. Most programs run under DOS but there are two that run under Microsoft Windows.

Detailed information about these programs is available in the on-line help files, accessible after the programs are installed, and the user is referred to the articles in the ARRL Handbook for which the programs are relevant.

A2D.BAS accepts input from a computer printer port and permits you to manipulate and/or display that data by modifying the BASIC program.

ACTFIL.EXE is a program to design some simple active filters.

Brian Beezley's COIL.EXE program calculates the important characteristics of solenoid (not toroid) coils.

ELLERS.EXE helps you to calculate placement and length for a coil-loaded shortened dipole using an existing pair of inductors.

GRIDLOC.BAS is a BASIC program to convert between grid square and latitude/longitude.

MORSE.EXE is a program to send and read CW with an IBM-compatible computer and a simple hardware interface.

NSHADOW.EXE helps one to locate local true north in order to orient directional antennas.

PINET.EXE includes several programs to aid design of Pi and Pi-L matching networks, as described under "Tank Output Circuits" in the Amplifiers chapter of the ARRL Handbook. These programs unfortunately do not cover the WARC bands.

TL.EXE computes many parameters for transmission lines, as well as antenna-tuner parameters -- including losses and stresses.

PWRSPLY.BAS is a BASIC program for designing regulated and unregulated linear power supplies.

UTCZONE.BAS accepts a reference UTC time and lists the equivalent time in time zones around the world.

VESTER.EXE contains the many files that make up Ben Vester's slow-scan TV system. "An Inexpensive SSTV System," in the Modulation Sources chapter of the Handbook, describes the necessary hardware and gives an overview of the system. Numerous text files in this archive tell how to set up, modify and use the system.

You can obtain a copy of the stiffy on an "exchange" basis – bring a clean 1,4 Mb stiffy to the meeting and Beavan will give you a copy of the ARRL disc. Note that some of these files may include shareware. If you elect to keep such software and use it, it is your responsibility to register your copy with the author and pay all necessary registration fees. ◘

PEARStalk

PEARS COULD SHINE IN A Y2K BLACKOUT

Although fears about the Y2K bug are tremendously overrated, most responsible bodies are taking all precautions against the possible effects of *other* people's inaction – or action.

Eskom, for example, is satisfied that its own computer-reliant systems are "Y2K Compliant", but the general misconceptions among the public could lead to consumers ceasing all activity over the period. The load on the network being drastically reduced, Eskom could find itself having to switch off the power to prevent the voltage rising above acceptable limits. The loss of power to their own repeaters could affect their radiocommunication links to numerous control points on the national grid.

To overcome this, PEARS' Chairman Chris ZS2AAW offered the use of the UHF backbone system of our extensive repeater network. Various Escom control points could be connected, while our own 2 metre repeaters would be switched out of the link for the time being and function as 'local' repeaters.

Our backbone system will actually be extended in order to reach important outlying Eskom points, and when normality returns, these extensions will remain available for us to link additional 2 metre repeaters, thus expanding our coverage. It is important to note that the extensions will not incur any costs for PEARS!

Eskom flew Chris to Johannesburg to explain the plan to their Head Office and they gratefully accepted the proposal. Satepsa and Telkom were also very supportive. They decided to approach other ham clubs to see if they could be of similar assistance, although we are the only area with such a widespread network.

Congrats, Chris, for the initiative. Hopefully ham radio will derive some positive publicity from this too, apart from the material gain by way of an extended repeater system.

REMEMBER THE FIELD DAY

Please remember the HF Field Day station that PEARS will be running on the grassy park next to the Sunridge Park shopping centre from noon on Saturday 9 October through the night to noon the next day, Sunday 10th.

Even if you cannot help, just drop in for a few moments to show your support.

See the call for help on Page 2.

2M LINK TO CT REALIZED

The long-awaited push through to link our 2 metre network to Cape Town eventually came to pass last month. Although comms were good, there were a couple of minor aspects that needed attention, one of which was noise reminiscent of a poorly operated mobile station.

With the added number of users, it becomes more important than ever to keep overs short, leave adequate gaps between overs, and maintain the conversation at a reasonable level of interest even for non-participants. If

QSOs go on and on about nothing, other operators are going to find the link boring and get into the habit of leaving their rigs switched off. This will largely negate the purpose of the link – to quickly find someone when you want or need a contact.

Of course, after establishing contact, one should move to a local repeater or even a simplex frequency if the QSO can be conducted satisfactorily that way.

VISIT TO PLETTENBERG BAY

At the August meeting it was agreed that we should aim to have another happy day trip to the QTH of Roger Davis ZS1J just west of Plettenberg Bay during November. Keep an ear on bulletins for further details of this visit.

A trip on the Apple Express was also suggested, and this will be followed up if there is enough interest.

VW RALLY BRIEFING 29 SEPTEMBER

Those who are participating in the rally comms on 1 and 2 October are asked to note that the **final briefing and handing out of documents etc. will take place in the Clubhouse at 19:00 on Wednesday, 29 September.** All concerned are asked to make an effort to attend.
Please read the article on page 2.

RAE INTEREST WANES

The early rush of students for the Rae classes given by Viv ZS2VM petered out after a couple of months and at the last count, only two were left. It was therefore more convenient – and decidedly more interesting – to meet at Viv's QTH for classes, where they could also see real ham radio at

work – smoking soldering iron, projects under construction on the workbench etc.

One can only wonder about the initial urge to go for a ham ticket, only to lose interest in a short while. Perhaps, like the CB craze itself, the migration to the amateur bands has also proved not to hold the sort of excitement that the CB operators expected.

JOTA

The annual Jamboree on the Air and CQ Hou Koers combined event is scheduled for the weekend of 16 and 17 October, but the Editor has heard nothing of arrangements here yet. Nevertheless, please keep the dates in mind and offer your help if PEARS decides to participate again this year.

GARDEN ROUTE NEWS

In an item that unfortunately did not make it into the August issue of QSX, Chris Meyer ZS1M wrote—

The upgrade to the new 600 repeater at Danabay should also be completed, with 70cm linkup to George (700) (switchable) and to Stillbay (750). Thanks should go to David (ZR1DJP) for the effort he has put into this linkup. Also a thank-you to Johan (ZS1AAC) at Stilbay for his contributions to this project, and the backup-batteries supplied, and to Chris Scarr for the setup of the repeaters, and last but not least – Hennie ZS2HBC for his input to the 24V power supply. Oh – I nearly forgot – big thanks to the Municipality of Mosselbay for the use of their premises to secure the repeater site at the Danabay water tower.

We hope to include regular clippings from the Garden Route Radio

Club in QSX. There is a growing band of hams down that neck of the woods, and they also seem to enjoy the social aspects of our hobby. Hopefully they will turn out in force at the planned gathering at the QTH of Roger Davis during November (see above).

BRC's *FEEDBACK* PUBLISHED AGAIN

The Border Radio Club has published an attractive issue of their newsletter *Feedback,* which has been in limbo for many years except for a one-off issue that was produced a year or so ago.

Congratulations, BRC. The latest issue was most impressive, both in content and in layout. We hope to see many more issues on a regular basis.

QSL BUREAU ANSWERS FAQ

• The SARLs QSL bureau handles about 25000 incoming and 5000 outgoing cards monthly.

• If cards come in for non SARL members, the addressees are informed by postcard that they can claim their cards at the current local postage fee plus R10 for handling and packing. If not claimed within one month, the cards are destroyed.

• Cards are despatched overseas when a minimum of 100 kg is reached. The tariff is then R22 per kg for delivery world-wide. It takes about 3 to 4 months to accumulate 100 kg.

• Incoming cards are despatched to an individual at any time throughout the year as soon as his/her envelope holds 20 or more cards.

• In addition, irrespective of the number of cards per envelope, one region is cleared completely every three months. There being six regions, a member in a given region could therefore wait up to 18 months if his envelope does not reach the 20-card minimum. (Delays at other bureaux, i.e. before cards reach SA, must also be added).

• However, arrangements are made to post a member's envelope on request, no matter what quantity is held.

• Members are urged to collect their cards at the Bureau where possible.

• PEARS has entered into an arrangement that the Bureau will bulk post to the Society all cards for those members who register for the facility with the PEARS Secretary. This is only available, of course, to those who are members of both the SARL and PEARS.

THE PHONETIC ALPHABET

Saney, ZR1S, did some research in the phonetic alphabets adopted for use throughout the world over the years. Most of those with a bit of mileage behind them probably remember best the Able, Baker, Charlie, Dog alphabet used during the Second World War and other skirmishes, before the current one was adopted circa 1956.

But there were many others. Saney lists no fewer than ten, adding that there were many others for almost every language on earth, even Russian and Chinese. Various police forces and post/telegraph offices used their own variations too.

Saney says he also found phonetics sometimes used by amateur operators as unofficial alternatives, e.g. phonetics such as America, Boston, Canada, England... Kilowatt... Radio... etc. He says (tongue-in-cheek, I *think*) "Only for interest, as I'm sure none of us would dare use these!"

[I'll wager that those who use the alternatives, as I am usually forced to do, will be better understood in poor conditions than those who adhere to the official alphabet!–Ed.] Q

Congratulations...

on your birthdays:

September

19 Roger Davis ZS1J
20 Pierre Knobel ZS2ABC
20 Martie van den Berg XYL of ZS2VV
22 André Mulder ZR2A
26 The one and only ZS2HB
27 Ewalt Bouwer ZS2EHB

October

6 Colin Ashwell ZS2AO
8 Vanessa Scarr ZR2VM
8 Raphie Schauder ZS2SP
8 André Oliphant ZR2BC
9 Pamela Koen XYL of ZR1JAC
9 Ewan Mathieson ZS2EN
12 Neil Thomas ZR2NT

on your anniversaries:

September

22 Anne ZR2ABC & Vic Olivier ZS2SZ
23 Joey & Des Pettit ZS2ABU
28 Marjorie & Dudley Forsyth ZS2AW

October

3 Maria & Anthony Marran ZR2AI
3 Susanna & Mike Bosch ZS2FM
6 Judy & Ken Tremeer ZS2BWB
9 Kay & Fred Strutt ZS2JS
10 Joan & Bill Browne ZS2BY

13 Louise & Pierre Knobel ZS2ABC

Welcome newly rejoined members Dick van den Berg ZS2VV (Cradock) and Neels du Plessis ZR2ABT (Uitenhage). It's good to have you back, chaps.

Travelling: Bryan ZS1NQ and Bernice left on 28 August for a few weeks in the UK and Malta.

Beavan ZS2RL and Mel Gwilt are visiting their 2-month old new twin grandchildren in Johannesburg (congrats, Mel and Beav and the parents!).

Roger Davis ZS1J to the UK for three weeks visiting his dad.

Sick List: Lynne ZS2MM was in hospital mid August for an operation but is up and about and back at work.

Other News: Shawn Corder ZR2SC sends 73/88 to all and tells us he might return home on 11 December.

Chick Mosley MØBUB and XYL Gail MØBUC (ex ZS2LM and ZS2TM) now have a 2m beam up as well as a half-wave dipole and mini beam for HF. They send 73/88 to their friends in SA and hope to work them on HF soon. There is a problem with TVI to their neighbours, which they hope to overcome. They have enjoyed some contacts using the new PSI mode. Ω

Your Society's Committee

Chairman, Repeaters, Packet	Chris Scarr ZS2AAW	38-1344
Vice Chairman, Secretary	Beavan Gwilt ZS2RL	360-6968
Treasurer, Assets Control	Clive Fife ZS2RT	32-3203
Awards, Refreshments,	Bill Hodges ZS2ABZ	581-2580
QSX Editor	Garth Laaks ZS2HB	38-1101
e-mail the Editor at	glaaks@iafrica.com	
QSX Collation/Distribution, repeaters, packet	Trevor Scarr ZS2AE	32-1746
Technical Classes (convening/administration)	Cyril Hislop ZR2H	360-8482
Technical Classes (lectures)	Viv Moore	360-4433
Librarian	Neil Thomas	
Special Events, Social	Cyril Hislop ZR2H	360-8482

PEARS' VHF/UHF & Other Services

REPEATERS

Town VHF	# 145.050/650
Town UHF	# 431.050/438.650
Cockscomb	145.000/600
Cradock	* 145.050/650
Grahamstown	* 145.150/750
Kareedouw	† 145.125/725
Knysna	* 145.075/675
Lady's Slipper	* 145.100/700
Uitenhage	# 145.075/675
Theescombe	† 145.175/775

* These form PE's long-range 2-metre repeater system, to which the East London 145.125/725 MHz repeater and the George repeater on 145.100/700 are also linked. # These can also be linked as required. † These are privately owned repeaters and are not included in the PEARS linked repeater system.

OTHER SERVICES

Packet Bulletin Board (ZS0NTP)	144.625
Packet Rose Switch ZS0GHT-3.046101 (144.675 in/out) or 046102 (UHF out to BBS)	144.675
2m Beacon (ZS2VHF CW ID) (horizontally polarized, 160W ERP)	144.410
6m Beacon (ZS2SIX CW ID) (horizontally polarized, 25W ERP)	50.005
6m Simplex Link with Lady's Slipper 2m Repeater (vertically polarized)	51.400
Wefax Relay (Meteosat)	145.350
Web Site	pears.8m.com

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 East London to George and environs as well as Cradock via the linked repeater system described above. PEARS' 7098 or 3640 kHz transceive facilities are also remotely linked as needed. In addition, the SARL's 40m transmissions on 7082 or 7066 kHz, alternatively 7070 kHz, can be remotely patched into the 2m network, either in receive-only mode or for full transceive capability for interactive events.

Date	Prepare and Read on 2m Repeater link
12 Sept	ZS2RT
19	ZS2ABZ
26	ZS2RL
3 Oct	ZS2AE
10	ZR2H
17	ZS2AAW
24	ZS2HB

DIARY DATES

SEPTEMBER
17 PEARS monthly meeting
18/19 SARL VHF/UHF contest
18 YARIA: World Am Rdo Day

OCTOBER
7 Wrinkly Rave
1/2 VW Algoa Rally
9/10 FIELD DAY CONTEST

✱ We *Like* Being *Your* Society! ✱