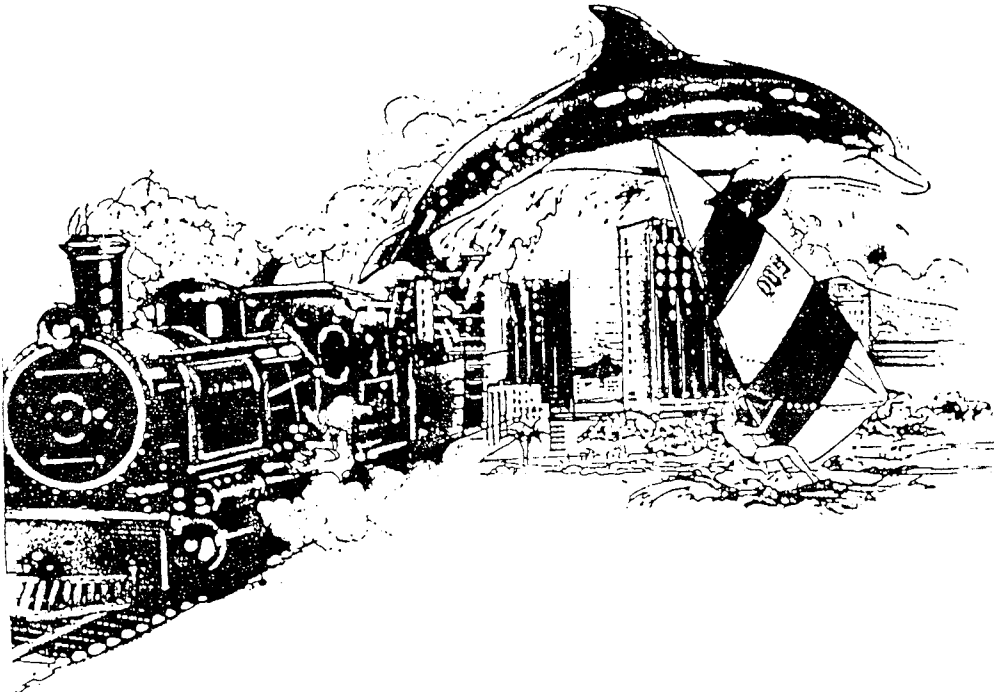


March 1994

QSOX

PORT ELIZABETH



The Port Elizabeth Branch of the
South African Radio League

P O Box 10402

Linton Grange 6015

NOTICE OF MEETING

The next General Meeting of the Port Elizabeth Branch will be held on Friday, 18 March 1994, commencing at 20h00 (8pm) in the Civil Defence Centre, Westview Drive, Mill Park, Port Elizabeth.

Captain Brian Turner, the Branch Commander of the SA Police Radio Control Unit in Port Elizabeth, will present a talk on the new sophisticated radio communications system recently implemented locally. This should prove most interesting and should not be missed.

The business side of the meeting will be dealt with after the conclusion of the talk and refreshments interval.

A selection of Technical Books from the SARL Bookshop will be on sale at the meeting. Here's an opportunity not to miss!

See you there !!

SPECIAL GENERAL MEETING

Notice is hereby given of a Special General Meeting of the Port Elizabeth Branch, in terms of Rule 173 of the Constitution, to fill the vacancies on the Branch Committee.

This special meeting will be held on Friday 18 March 1994 in the Civil Defence Centre, Westview Drive, Mill Park, Port Elizabeth, after the business of the abovementioned General Meeting.

**MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH
BRANCH OF THE SA RADIO LEAGUE HELD ON FRIDAY 18 FEBRUARY 1994
AT THE CIVIL DEFENCE CENTRE, MILL PARK, PORT ELIZABETH.**

PRESENT:

40 members and visitors.

APOLOGIES:

As per register.

WELCOME:

The meeting opened at 20:00 with the Chairman welcoming all present.

CONFIRMATION OF MINUTES:

The minutes of the previous meeting as published in "QSX" were taken as read and their adoption proposed by Wolf ZS2WG, seconded by Trevor ZS2AE.

MATTERS ARISING:

SATEPSA - See Correspondence below.

FINANCE:

The branch funds stood at R13 001.51. The AGM Fund stood at R6 457.63. Raffle monies for the AGM are still flowing into the branch.

CORRESPONDENCE:

A copy of a letter by Ken Victor ZS2OC to the SARL Council regarding the University Repeater and other complaints was tabled, together with covering letter from HQ in this regard. Council advised that the matter should be settled at branch level and that it considered that Hamnet, being an integral part of the League, should fall under the jurisdiction of the local Branch and should therefore co-operate closely with the Branch Committee.

The Chairman informed the meeting regarding further developments in this regard - his being requested to attend at SATEPSA meeting at which the role of the SARL in SATEPSA was discussed. The SATEPSA Chairman had stated at the meeting that if the University repeater was removed he would make a recommendation to the SATEPSA main branch that the SARL and HAMNET will be of no use to SATEPSA (from an emergency communications point of view) and that they prevail upon the Branch.

Internal affairs discussed only at Branch Committee meetings were also raised in detail by the SATEPSA Chairman at the meeting and the Chairman was most embarrassed by this unbecoming action in the presence of SATEPSA representatives.

A registered letter had been sent to SATEPSA (EP) setting out the position from the Branch and requesting an apology in respect of the embarrassment caused to the Chairman, and requesting that the letter be tabled at their next meeting. The Branch representative at SATEPSA would be asked to ensure that our letter was tabled at the meeting and responded to.

Subsequent to that meeting the Branch Chairman had been accused by the SATEPSA Chairman, also quoting an accusation by the Branch Vice-Chairman, of tape recording the SATEPSA meeting on military premises and threatening military police action, this being a falsehood.

The motive for this accusation was questioned - was it for the the statements quoted in the Branch letter to be denied if the meeting had not been tape recorded, or had the letter caused some embarassment?

The matter was then put to the floor for comment and after discussion Trevor ZS2AE complimented the Chairman on the way in which he had thus far handled the matter and suggested that "the matter be closed and treated with the contempt it deserved". This was unanimously agreed to.

Letter regarding the UPE repeater had also been received from Registrar of UPE. It was noted that a copy of their letter had been sent to Maj. KJ Victor, indicating his possible involvement in the matter. The Committee would respond in the matter.

Notification of a yearly fee of R500.00 by SAFCOL (Dept of Forestry) for the Kareedouw repeater site had also been received. It was agreed that the Branch was not prepared to pay such a fee and that if necessary the free offer made by SENTECH for use of their Kareedouw site would be taken up. Al ZS2U had been requested by the Chairman to take up the matter at the next SATEPSA meeting with the view to having the fee waived or reduced.

GENERAL:

Vic ZS2SZ reported that the interference by Randpave on 145,700MHz had not been heard over the past fortnight.

The QRP group would have a meeting at the QTH of Viv ZS2VM to discuss the display of QRP equipment at the AGM.

The Chairman announced with regret that he had provisionally accepted a transfer to East London rather than accept a lesser position in PE following the merger of his saltmine and would probably announce his resignation as Chairman shortly.

The next U/D get-together on the first Friday evening of the month was mentioned and all members were welcome to attend.

AGM 1994:

Iris ZS2AA, our Guest of Honour at the AGM Dinner, would be motoring through to PE for the AGM together with her daughter. It was agreed that the Branch would cover her accomodation expenses.

Dick then took the floor and discussed the plans for the AGM, and the arrangements so far made in detail. The cost of the dinner tickets would be announced at a later date over Branch and HQ bulletins. Final arrangements with the PE Technikon caterers were to be made the following week.

A YL/XYL meeting to be held on Tuesday 22 February to finalise catering, etc. for the Friday Welcoming Party was scheduled. A map of PE and the Technikon would be sent to all branches.

Chris ZS2AAW is to install Storno repeaters on test on 2-metres and 70cm on Lady Slipper, and was thanked for this.

Neels ZR2ABT is building a 24-volt power supply with battery backup to run the two repeaters and was also thanked for his efforts.

It was noted that the ZS0PEL PBBS had been switched off to enable an extra hard drive system to be installed. It is now back on the air.

Sandy ZS2LN was thanked for again making the labels for QSX, etc.

AGM MOTIONS:

After the tea break the motions for the AGM were discussed in order for our Chairman, who would be AGM Delegate, to be briefed. As there were no contentious issues being raised, these were dealt with speedily.

CLOSURE:

The being no further business, the meeting was declared closed at 22:15 with thanks to all for attending, and special thanks to those who helped with the teas and Coke.

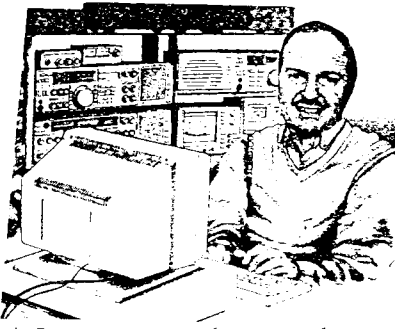


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ZS2CTR

on Frequency

* Just two months ago who would have thought that I would be pulling up my roots and moving QTH from PE. These days one's job comes first, so rather sadly for me this will be a final column and it will take the form of a brief Chairman's report.

The past six months have been taken up largely with planning for the AGM held this last weekend and which was yet another Port Elizabeth success. Everyone who attended was highly complimentary of our slick organisation. I cannot thank everyone who assisted in one way or another enough for their help. Thank you all very much.

I must, however, single out our AGM Convener, Dick ZS2RS, and the leader of the YL's AGM Committee, Julie Scarr, for the magnificent work they did for the Branch; as well as Simone Pukall ZS2YL for the exquisite flower arrangements provided at the AGM dinner. Thanks also to our Guest of Honour, Iris Hayes ZS2AA, for accepting our invitation and making the AGM something special with her presence. Space limitation in this issue of "QSX" prevents me from thanking everyone, but I will be contacting each one shortly.

Grateful thanks must also go to those members who have made contributions to our AGM Fund - some most generous, those who arranged fund-raising activities or sold Raffle tickets. R2 400,00 was raised, with R800,00 from Branch members - an excellent result. Again, many thanks to Lydia White for donating the beautiful oil-painting to us. The painting was won by M Pretorius of Welkom.

Thank you one and all.

Activities for the year are just getting into top gear, but included a terrific Branch AGM spit-braai, a super Christmas meeting and flea-market, an enjoyable work party at the Grahamstown repeater site, several excellent guest speakers at meetings with very good turnouts of members, prominent participation in several Intechnet programmes and the very popular Uitenhage/Despatch Social Group's get-togethers.

Being Chairman of a strong Branch is a real test! During my time in the Chair any decision I took was what I believed was in the interests of the Branch, or in promoting the Branch and its members, our hobby, or seeing the wishes of the Committee carried out.

To the Committee and everyone who offered me such fantastic support in the Chair or who in any way has supported the Branch during my term of office, I say a very big thank you.

To all who have rendered assistance in maintaining and/or improving our repeater systems, on behalf of the Branch and all repeater users, many thanks for what is often a thankless job. Your role in the Branch is a most vital one, which is not always appreciated.

During my six years in PE I have made some wonderful friends amongst you and I will really miss the sincere friendships built up. Through ham radio I will of course try and keep up contact with you, but I know that it just wont be the same.

In departing, I have one wish - that the proposed UHF link between the Grahamstown and King Williams Town repeaters comes about as this will unite hams in the Eastern Cape and Border - a positive achievement apart from the benefits for emergency communications.

For me it has been a pleasure to serve the Branch and give a little back to this wonderful hobby of ours.

May the PE Branch continue to prosper from strength to strength. I believe that if "politics" and personal interests could just be kept out of matters, the Branch has a tremendous future!

To you all from me, Rosemary and the boys, cheerio, and may God bless you all.

73 de Colin
ZS2CTR

QSOX
Port Elizabeth

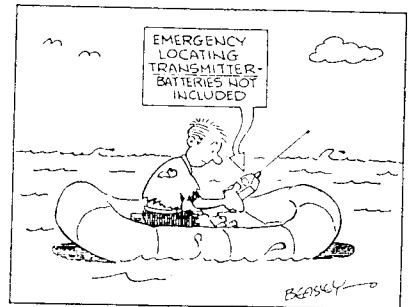
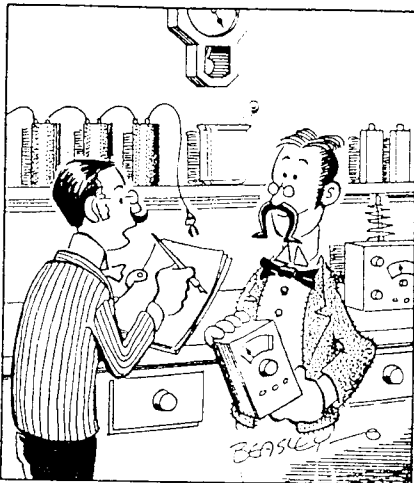
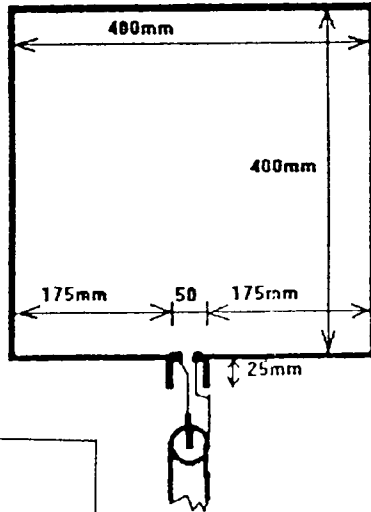
A SIMPLE QUAD FOR TV RECEPTION

- By ZR6ARF

Whilst travelling around or going on holiday one comes across strange looking things!

During my last holiday I spotted the antenna depicted below on a caravan and made a copy of it. It works exceptionally well and can be constructed from "bloudraad" or thick domestic wiring cable.

According to the sketch the antenna is horizontally polarised. For vertical signals the construction must be turned 90 degrees. The entire construction must be isolated from the supporting mast. Make the antenna portable for camping or permanent for the QTH.



"All right Mr. Ohm, we'll name the unit of resistance after you—now, what shall we use for the symbol?"

COMPONENTS : Values and Ratings

There are several standards in existence depending on the source of manufacture of the component in question. Values will always be quoted correctly in the circuit diagrams but the problem arises when you try and read the value off the component markings. The manufacturers in Japan, Europe and UK and the USA tend to have their own individual methods, or, introduce their own brand of markings. The recognised INTERNATIONAL standard should be the only standard, so this article will concentrate on these values and ratings.

Resistor and Capacitor values and ratings avoid decimal points and large numbers of zeros wherever possible. Small and large values are usually abbreviated as follows:

p (pico-)	=	10 ⁻¹² .
n (nano-)	=	10 ⁻⁹ .
u (micro-)	=	10 ⁻⁶ .
m (milli-)	=	10 ⁻³ .
k (kilo-)	=	10 ³ .
M (Mega-)	=	10 ⁶ .
G (Giga-)	=	10 ⁹ .

Note that nano-farad (nF) is the international way of writing 1000pF or 0.001uF. As a guide the table below can be used for interpolation of other values.

CAPACITANCE UNIT CONVERSION.

NanoFarad [10 ⁻⁹ F]	picoFarad [10 ⁻¹² F]	microFarad [10 ⁻⁶ F]	Number Marking
0.1nF	100pF	0.0001mfd	100p
0.3nF	300pF	0.0003mfd	300p
1nF	1000pF	0.001mfd	102
3nF	3000pF	0.003mfd	302
10nF	10 000pF	0.01mfd	103
30nF	30 000pF	0.03mfd	303
100nF	100 000pF	0.1mfd	104
300nF	300 000pF	0.3mfd	304
1000nF	1 000 000pF	1mfd	105

NB: Number markings are usually followed by a capital letter - which will indicate the voltage rating of the capacitor. Capacitance values below 100pF eg. 50pF would be marked n50., 4p7 represents 4.7pF, or 0.000 000 000 0047 Farad.

The DC working voltage of capacitors (other than electrolytics) is normally assumed to be 60V. As a rule of thumb, a safe value is usually approximately twice the DC supply voltage. The international letter symbol 'U' for voltage is often used instead of the ambiguous 'V'. 'V' is normally reserved for 'volts'. For instance: U_b = 10V, not V_b = 10V. The DC test voltages are usually measured with a 20k ohm per volt instrument, unless otherwise specified.

Electrolytic and tantalum capacitors are marked with their maximum working voltages.

MIR SPACE STATION COSMONAUTS

Veteran Russian cosmonaut Valery Polyakov confidently predicts he can bear the strains and stresses of a record-breaking space flight due to last a monumental 429 days. (He was amongst the crew which took over the space station in January of this year).

The 51-year old doctor will spend his time aboard Russia's floating Mir space station carrying out medical experiments to test the effects of long periods of weightlessness on the human body.

The results of the tests will be used to help prepare for a proposed US-Russian expedition to Mars.

"I am fully aware it will be difficult and hard. But I have the experience," the small wiry cosmonaut told a news conference in Zvyozdny Gorodok (Star City), Russia's main space training centre 40km east of Moscow.

Dr Polyakov's flight will beat the previous record of 366 days in space, set by cosmonauts Vladimir Titov and Musa Manarov between December 1988 and December 1989. He will also become the most-travelled man in space.

"I think there should be no chance of my getting depressed," the cosmonaut said.

Dr Polyakov, made a Hero of the Soviet Union after spending 277 days in space between August 1988 and April 1989, will spend the first 177 days of his flight with the team members Viktor Afanasyev and engineer Yuri Usachev.

"In our spare time we'll consider Russia's fate," he joked. The extended trip is the 15th to be carried out on board Mir."

The team, blasted off from Kazakhstan's Baikonur cosmodrome, will also research the behaviour of hurricanes. During flight, three cargo craft will be sent up to Mir with fresh provisions. No space walks are planned.

The replacement for Mir is estimated to cost \$1 000m, a tall order for the cash-strapped country.

Russia and the United States, once bitter Cold War adversaries, are boosting space co-operation to cut the crippling costs involved.

US Vice-President Al Gore and Russian Prime Minister Viktor Chernomyrdin have signed an agreement four-year joint space venture which will serve as the first step toward building an international space station dubbed Alpha.

WANTED.

A reward is offered for information leading to the arrest of Eddy Current, charged with the induction of an 18 year-old coil named Milli Henry found induced, half choked and robbed of valuable joules.

This unrectified criminal armed with a ferrite rod, escaped from Weston Primary Cell, where he had been clapped in ions since Faraday.

With an erg to be free, his escape was carefully planned in three phases. First he fused the electrolytes, then climbed through a grid despite the impedance of the warders whose reactance was too slow. Finally he went to earth in a magnetic field.

What seems most likely is that he stole an a.c. motor. This is of low capacity, and he expected to try to change it for a megacycle, and return by short circuit to ohm.

He may offer series resistance and is a potential killer.

A.C. Maynes-Humm.
Sheriff.

TIME FOR EVERYTHING

To all the YL/XYLs

TAKE TIME to work:

It is the price of Success.

TAKE TIME to think:

It is the source of Power.

TAKE TIME to play:

It is the secret of perpetual Youth.

TAKE TIME to read:

It is the foundation of Wisdom.

TAKE TIME to be friendly:

It is the road to Happiness.

TAKE TIME to dream:

It is hitching your wagon to a star.

TAKE TIME to love and be loved:

It is the privilege of the gods.

TAKE TIME to look around:

The day is too short to be selfish.

TAKE TIME to laugh:

It is the music of the soul.

COMPUTERS: ALL THEY EVER THINK OF

Micro was a real-time operator and dedicated multi-user. His broadband protocol made it easy for him to interface with numerous input/output devices, even if it meant time-sharing. One evening, he arrived home just as the sun was crashing and parked his Motorola 68000 in the main drive (he missed the 88100 bus that morning), when he noticed an elegant piece of livewire admiring the daisy wheels in his garden. He thought to himself "She looks user friendly".

"I'll see if she'd like an update tonight."

Mini was her name and she delightfully engineered with eyes like Cobol and Prime Mainframe architecture that set Micro's peripherals networking all over the place.

He browsed over to her casually, admiring the power of her twin 32-bit floating point processors and enquired "How are you. Honeywell?"

"Yes, I am well," she responded, batting her optical fibres engagingly and smoothing her console over her curvilinear functions.

Micro settled for a straight line approximation. "I'm standalone tonight." he said. "How about computing a vector to my base address? I'll output a byte to eat and maybe we could offset later on." Mini ran a priority process for 2.6ms. then transmitted: "BK. I've been dumped myself recently and a new page is just what I need to refresh my disks. I'll park my cycle in your background and meet you inside."

She walked off, leaving Micro admiring her solenoids and thinking, "Wow, what a global variable, I wonder how she will like my firmware. They sat down at the process table to a top of form feed of fiche and chips and a bucket of Baudot. Mini was in conversation mode and expanded on ambiguous arguments while Micro gave acknowledgement, although, in reality, he was analysing the shortest and least critical path to her entry point.

He finally settled on the old "Would you like to see my benchmark" subroutine, but Mini was again one step ahead. She was up and stripping off her parity bits to reveal the full functionality of her operating system software. "Let's get Basic you RAM," she said. Micro was loaded by this stage, but his hardware policing module had a processor of it's own and was in danger of overflowing it's output buffer, a hang-up Micro was seeing his analyst about. "Core" was all he could say.

"Reset baby" he said. "I've been debugged."

"But I haven't got my current loop enabled and I can't support child processes," she protested.

"Don't run away, " he replied. "I'll generate an interrupt."

"No, that's too error prone and I can't abort because of my design philosophy," said Mini. Micro was locked in by this stage and could not be turned off. But she soon stopped his thrashing by introducing a voltage spike into his mains supply, whereupon he fell over with a head crash and went to sleep.

"Computers, "she thought as she complied herself. "All they ever think of is hex."

PINEWOODS
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To All P.E. Hams.

Greetings from the plaas.

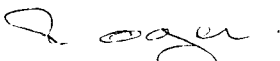
As you may be aware, I have offered to host a Braai on my farm for the P.E. and country amateurs and wish to give you a run down on where we are and what we can offer.

The farm is on the Airport (Robberg) Road and the easiest way to drive there is to drive approximately 10 kms further than Plettenberg Bay and turn left at the crossroad where a small aircraft is shown on a green sign. (The sign shows Masescha and Eden Gardens to the right). Follow the dirt road for exactly 4 kms, back towards Plett. and you will see Pinewoods on your right hand side.

The farm is some 40 acres in extent and is a way of life more than farming for a living. My daughter has four horses grazing on the front fields and other livestock consists of four geese, sixteen ducks and at present six chickens.

There is ample tenting / caravanning area at the top of the property and if you wish to arrive on the Friday night and stay the weekend, you are welcome. There is an ablution facility with its entrance at the back of the farmhouse.

The top of the farm (due south) is against the Harkerville State Forest and there are some fantastic walks and horse trails through the forests to the cliffs and the sea. My wife and I are looking forward to seeing you all soon after the A.G.M.

73 
Roger ZS1J and Nita.

THE DX SCENE : ARABIAN KNIGHTS

The Royal Jordanian Radio Amateur Society (RJRAS) issue the following awards, and appear to be very beautiful. Some of you may know the call JY1 and maybe you have worked this station, it is of course the call sign of HRH King Hussein of Jordan.

THE SILVER AWARD

This award, issued by King Hussein requires proof of working six different JY prefixes. Photocopies of QSL cards required (or certification) and 10 IRCs.

THE CORAL AWARD

This award, issued by King Hussein is for amateurs who visit Jordan and make a QSO from Aqaba.

THE ARABIAN KNIGHTS AWARD

This award, issued by the Arab Radio Amateur League (ARL) and presented by JY1 is for working 10 Arab countries one of which must either JY1 or JY2 since January 1st 1971.

The Arab countries are:

A1, A6, A7, CN, HZ, J2, OD, ST, SU, T5, Y1, YK, 3V, 4W, 5A, 5T, 70, 7X, 9K.

The above list may not be 100% correct due to changes in recent times but it is a reasonable guide. Send applications to:

AWARDS MANAGER, PO BOX 1055, AMMAN, JORDAN.

While we are in the area lets have a look at KUWAIT (9K).

THE KUWAIT AWARD

This award is issued by the Kuwait Amateur Radio Society (KARS) for working 10 different 9K stations. There is no date limitation, any band/mode may be used, and all contacts must be made from the same location or within a radius of 100km of the original location. Send 5 IRCs and certified list of contacts to:

AWARDS MANAGER (KARS), PO BOX 5240, SAFAT, KUWAIT.

RESIGNATION

It is with regret that we announce that the resignation from the Branch by Al Akers ZS2U has been accepted by the Committee.

Al has rendered invaluable service to the Branch whilst holding the portfolio's of Vice-Chairman, Hamnet liaison, training, rallies and club station on the Committee.

We thank Al most sincerely for his services to the Branch.

THIS 'N THAT

CW as a requirement for HF operation has been much in the news of late. Here are two more controversial stories noted:

Like the RSGB in the UK, the French Amateur Radio Society carried out a survey amongst its members regarding the necessity of Morse Code as a requirement for the HF licence. The French, however, restricted their proposed code-free licence to the 10-metre band. The result was that 71% of their members voted that they felt that the CW test was not necessary to transmit on the 10 metre-band only.

It is very interesting that the regulations laid down by the International Telecommunications Union (an agency of the UNO) which set the requirements of morse code for amateurs to use the HF bands do not prescribe the speed or method of testing. So only a knowledge of the CW alphabet should be sufficient to meet this requirement. It is the various countries licencing authorities which prescribe a speed requirement.

The Bell Telephone Company in America struck a snag in a town in the USA. The local authority would not allow them to erect a high tower for cellular telephone transmissions. A bright engineer overcame the problem. He noted that a church was being constructed in the town and had the plans changed to include a special steeple incorporating the required antenna!

An unusual case of lead poisoning came to light in the USA, which we can learn from. After an electrician became sick numerous tests were carried out on him and it was established that the level of lead in his blood was 10 times higher than normal. Then it was established that he had a habit of chewing the pieces of plastic insulation from domestic wiring like chewing gum. The lead content in the plastic was fairly high, and over the years built up in his bloodstream!

Hint for constructors: When making PC boards which incorporate IC's, it is often a problem to drill the holes precisely enough for the IC's to fit neatly. One way of overcoming this is to clamp a piece of Veroboard to your new PC board and use it as a jig to guide the drill. Perfect results are obtainable.

During US space shuttle missions, communications with the crew can often be heard on the following frequencies (USB):-

WA3NAN, Goddard Space Centre, Washington: 21395, 28650

W5RRR, Johnson Space Centre, Houston: 14280, 21350, 29495

W6VIO, Jet Propulsion Lab, Pasadena: 21280

Heard on the air: "What type of vertical antenna are you using?" The reply: "One that goes straight up!"

Suggestion for the ultimate ham bumper sticker: Radio amateurs do it with frequency until it hertz !

Port Elizabeth Branch Committee

Chairman, Editor QSX and Bandplanning:	Colin Robertson ZS2CTR	Tel 300570
Secretary, Tea Convener, and Uitenhage/Despatch Liaison:	Sharon Layton ZS2SL	Tel 9227958
Treasurer:	Clive Fife ZS2RT	Tel 323203
Awards, Asst Rallies and Club Station:	Peter Flynn ZR2PF	Tel 464096
Digital and Repeaters:	Wolf Gerstle ZS2WG	Tel 301510
Projects and Repeaters:	Martin Layton ZS2ML	Tel 9227958
Social, Guest speakers, Special Events & 1994 AGM Convener:	Dick Schonborn ZS2RS	Tel 563908
Assistant Editor QSX	Mike Bentley ZR2MBM	Tel 301498
Branch Bulletin News:	Colin ZS2CTR, Sharon ZS2SL and Peter ZR2PF	

Sunday Bulletins

Bulletins are transmitted on Sundays at 08:45 on

7098 kHz	:		<u>Reader</u>	<u>2M Net</u>
145-700 MHz	:	27/03	ZS2RT	ZS2RS
145-750 MHz	:	03/04	ZR2PF	TBA
		10/04	ZS2WG	TBA
		17/04	ZS2SL	TBA

Branch VHF & HF Services

Repeaters:

Town VHF.....145-050/650	Kareedouw.....145-125/725
Town UHF.....431-050/438-650	Lady's Slipper.....145-100/700
Grahamstown.....145-150/750	Uitenhage.....145-075/675

Other Services:

2m Beacon (ZS2VHF CW ID).....	144-910	MHz
Packet Bulletin Board (ZS0NTP).....	144-675	& 14-109 MHz
Digipeater (Grahamstown ZS0GHT).....	144-675	MHz
6m Link with Lady's Slipper.....	51-400	MHz
6m Beacon (ZS2SIX CW ID).....	50-005	MHz
Wefax Relay (Meteosat II).....	145-350	MHz

☺☺☺ WE LIKE BEING YOUR BRANCH ☺☺☺