

THIS NEWSLETTER IS PUBLISHED BY THE
PORT ELIZABETH AMATEUR RADIO SOCIETY

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January 2001

CHANGES RE JANUARY MEETING

The monthly general meeting of the PORT ELIZABETH AMATEUR RADIO SOCIETY will be held on **Friday 19 January 2001**.

PLEASE NOTE THE CHANGE OF TIME AND VENUE:

This month, the meeting will be held in the **Walmer Scout Hall in Fordyce Road**, i.e. near 4th Avenue, overlooking the Baakens Valley, where we have held various AGMs in the past

The President and Vice President of the SARL, Hans Potgieter ZS6ALJ and Vice President Syd Tyler ZS6AYC, **will be attending to address us on developments in the League and to listen to any comments, complaints or questions that PEARS members may have regarding the SARL and/or Amateur Radio.**

To facilitate a bit of socializing, a **bring and braai** will start at **17h30** – please **bring all your own eats, drinks and utensils**. PEARS will provide the fires. The monthly meeting will commence at 20h00. Society business should be disposed of quite quickly, whereafter Hans and Syd will 'go in to bat'.

Please make a point of attending and bring your spouse or YL/YM along too, just to lend an air of respectability to the occasion.

Wrinkly Ravers

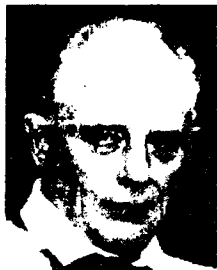
The next rave is scheduled for Thursday, 1 February 2001.

This time we will return to the Zwartkops venue - the former Zwartkops Yacht Club clubhouse which, of course, is now under new management and is no longer a yacht club.

Although the service at our December get-together at this venue was less professional than in the past, we have reason to believe that it will be somewhat improved for the February rave. The new management had clearly not yet had time to settle down and things were a little disorganised.

The last rave, held at the *Algoa Bay Yacht Club* in January, was very enjoyable. However there was some inconvenience: unless you are an ABYC member you have to rely on others to fetch your drinks from the bar. Also, the whole group receives a single detailed bill, and one of the group then has to calculate individual accounts and gather the rands and cents.

The Ravers have agreed that we should vary our venues often in future, trying out different joints from time to time. Suggestions will be welcome, including possible places of interest to visit before we settle down to lunch. ☐



The *Chairman's Chat*

*A*t the time of writing (typing?) this, Christmas is a fast-fading memory and the New Year festivities loom on the horizon. I trust that Santa Claus was kind to all our members and readers of this superb newsletter I don't know why, but my bank manager always looks very stressed at this time of the year!

Please make an effort to attend our January meeting, to be held on the 19th. SARI President Hans Potgieter ZS6ALJ and Vice President Syd Tyler ZS6AYC will be attending, to inform us of some changes within the SARI, and to answer whatever questions / queries / moans / groans we may have.

The plan is to arrange a venue more spacious than our usual gathering place, with some socialising thrown in. The final details are elsewhere in this edition of QSX.

In conclusion, my best wishes to everybody for 2001. To paraphrase an Irish blessing.... "may the wind be at your back and the road rise up to meet your feet".

73,

Beavan ZS2RL

HAMNET / ECARES NEWS

PEARS NATIONAL VHF/UHF CONTEST

It seems that we will be having a record number of entrants, from the East Cape at least, for this contest which takes place from 1800 Friday 19 January to 1800 Sunday 21 January.

It could be just for the fun of it.

There is the possibility of making long distance contacts, especially as there will be so many stations active then. For instance, during the last contest Port Elizabeth amateurs not only contacted East London and nearby stations but also stations in West Cape, Natal and Transvaal.

It is a good time to work towards the PEARS Worked All Divisions award. It is also an excellent opportunity to sharpen up your operating practices for emergency operations, especially for the field stations.

Of course, it is great if you do it for all

these reasons.

Keep your contacts brief. You and others are likely to make more contacts this way. For instance, meteor scatter openings may last only seconds, long enough to make a quick contact, but missed if you are busy chatting. If you do want to chat, move away from the calling frequencies.

See you in the contest.

NEW MEMBER

Welcome to Neville ZS2NV, who has joined ECARES. Bathurst now has all its amateurs belonging to ECARES: Neville and John ZS2J

73.

Al Akers ZS2U
Provincial Director,
Hamnet East Cape/ECARES

PEARS VHF/UHF CONTEST 19-21 JANUARY!

PEARS' popular VHF/UHF contest will take place from 18h00 on Friday, 19 to 18h00 on Sunday, 21 January. The rules were included in the November issue of QSX.

Al Akers has offered his favourite site on Lovemore Heights to set up a station in the Club category so that PEARS will be represented in the contest that bears its illustrious name.

This is a generous offer, since it precludes Al's participation in his personal capacity and he has usually done pretty

darned well in contests.

Volunteers are asked to help with operating and generally assisting around the station, or merely giving moral support.

Volunteers are asked to contact Al ZS2U (tel. 360-2983) or Ewalt ZS2EHB (933-3482).

Operators are standing by to receive your calls right now. Please don't delay – the event is virtually upon us as you read this. If you call within an hour, we'll throw in an extra cup of coffee during the night shift. ☺



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ON REFLECTION...

Lionel Coombe-Davis, ZS2DD,
writes:-

The letter from Ken, ZS2BWB, in the December issue of QSX-PE regarding the use of aircraft and satellites to reflect VHF/UHF signals reminded me of experiments carried out by several American amateurs who successfully reflected their signals off the two ECHO satellites during 1961/1962.

These experiments were carried out on two metres.

According to QST magazine for those years high power, high gain antennas and sensitive receivers were needed to reflect signals off the satellites.

ECHO-2 was the more popular satellite because of its larger size and lower altitude

NASA launched two satellites as part of their passive communications satellite programme, ECHO-1 in 1961 which was 30 metres in diameter, a nominal altitude of 1700 kilometres and ECHO-2 in 1962 was 41 metres in diameter, nominal altitude of 1280 kilometres.

Both these satellites were made of

laminated aluminium foil and Mylar. They were highly reflective and could easily be observed with the naked eye in the early morning and evening passes.

As a matter of interest, these two ECHO satellites were still visible during the latter part of 1996.

I thought this information may be of interest as Ken did ask for debate on the subject.

Vy 73.

Thanks for those interesting snippets, Lionel. Ken seems to have stirred up something with his letter. Perhaps other readers have some thoughts or further information to share with us?

By the way, in my remarks appended to Ken's letter I referred to the TV transposer that we erected outside Umtata but did not mention that we received the input signal from the SABC transmitter at Paddock, near Port Shepstone. The TV flutters that we experienced were the result of the reflection of the signal from southern Natal off aircraft flying along the coast, a long way from Umtata —Ed

FOR SALE ★ WANTED ★ SWOP

WANTED

* 2 Metre all-mode transceiver — Richard Seddon ZR2CLI. tel (043) 745 1650 or 082 892 1310

WHO'S WHO?

Surprisingly, some readers were unable to identify the pictures in last month's issue of some of our committee members after their facial enhancements. They were Beavan Gwilt ZS2RL, Greg Maynard ZS2RE, Bill Hodges ZS2ABZ and Chris Scarr ZS2AAW. Good looking bunch, huh?

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 17 NOVEMBER 2000

Welcome: In the absence from PE of the Chairman, the vice-chairman welcomed those present. Special welcome to the XYL's, to those that had traveled from out of town, ZS2GIN, ZS2PJP, ZR2JRD, to ZS2BY who was back in town, and to the RAE students.

Present & Apologies: As noted in the attendance register. Beavan and XYL were away at Nature's Valley for a few days.

Minutes of the Previous meeting: Proposed: ZS2RE; Seconded: ZS2ABZ

Matters Arising: None

Finance: As noted in the Committee meeting minutes, and discussed at the meeting.

A proposal was tabled that, because of exorbitant bank transaction fees on our savings account, the Treasurer would be permitted to close this account, and run a petty cash balance under his own control, to a maximum of R2000. This would eliminate the bank charges per withdrawal. The treasurer would keep the 32-day notice account as-is. The meeting approved.

Correspondence: As per the list in the committee minutes. Eager to get on with the party, the Secretary asked any interested parties to come forward for any information in this regard!

General:

- Trevor handed out some certificates:
To Bill, ZS2BY, the "ou toppie" award, on his reaching the 80th mark
To Alex, ZR2T, three certificates for the PEARS VHF/UHF contest.
Thanks were expressed to Greg, Morag and Bill for organising the spread.
- Viv announced that there would be technical meetings on a Monday evening to follow on the RAE exam recently written. Time would be 7pm as requested by some attendees.
- Trevor announced that there were some old library books available at the back of the hall, and these, if not taken, would have to be disposed of.

The meeting closed at 20h15. The real business of the meeting was then enjoyed by all -- the cheese and wine function as provided by the society by tradition at this the last general meeting of the year. 🍷

LATE NOTICE - Peggy and Viv Moore ZS2VM have moved QTH. After 25 years or so in the popular Framesby house much visited by fellow hams, especially when looking for guidance or help with a technical problem, Peggy and Viv have opted to shift into their townhouse at No. 6 Luneville Place, corner of Elise Street and Gisela Road, Lorraine. Their new telephone number is 368-1340. Travel west along Centenary Road (out of Circular Drive), then do a dog's leg at the top into Gisela.

SARL MATTERS

SARL COUNCIL VACANCIES

There are five vacancies on Council and nominations are invited from members of the SARL to fill them. Each nomination must contain the following:

1. Full names, callsign and address of nominee.
2. An amateur radio related CV of not more than 200 words.
3. A signed declaration by the nominee that he/she will accept nomination and serve on the Council of the SARL if elected.
4. Each nomination must be signed by a proposer and seconder.

Only fully paid-up members of the SARL may be nominated, propose or second a nomination.

The nominations must reach the National Amateur Radio Centre by no later than 31 January 2001.

MOTIONS FOR SARL AGM

Motions for submission and consideration at the Annual General Meeting of the SARL which is to take place on 28 April 2001 are invited from members.

Each motion must contain the following:

1. A concise description of the motion.
2. A motivation in support of the motion.
3. A proposer and a seconder, who must be members of the League.

The motions must reach the National Amateur Radio Centre by no later than 31 January 2001.

SARL AGM TO TRAVEL

In the recent postal ballot SARL members overturned a previous AGM decision that the Annual General Meeting should always be held in the Gauteng Area. There were 260 votes in favour of the proposal by Council and only 25 votes against.

Council recently suggested that AGMs should rotate to various centres of South Africa to give many more

members an opportunity to attend and participate in AGM activities.

We spoke against the restrictive motion for the very reason now offered by Council for reversing it, and, after a discussion with the President at the last AGM, a motion was to be submitted to the forthcoming one to reverse the ill-conceived idea. However, Council obviously decided to get cracking earlier, which is to be commended.

Isn't it amazing, though, how often PE's ideas have been turned down initially, only to be adopted eventually?

Council is now inviting clubs to submit proposals for hosting the AGM and the annual prize-giving function on Saturday 28 April 2001. The proposal has to be "in great detail" and include a full programme with costing, and it must reach SARL HQ *before 15 January 2001*.

Considering the short notice period and holiday commitments, few clubs outside Gauteng are likely to be able to complete proposals in time.

I predict that the 2001 AGM will be held in Rustenburg, where plans were already advanced for holding the 2000 meeting there. The idea had to be cancelled when someone pointed out the AGM decision to peg AGMs to Gauteng.

SARL HQ CLOSED 5 WEEKS

SARL Headquarters, alias the National Amateur Radio Centre, closed for the holiday season on 13 December and was due to reopen on 17 January. I hate to think of the backlog that must be building up, especially following the early announcement of the RAE passes.

If the SARL is to take over from ICASA the issuing of licences, as has been announced, they will no doubt need to keep the offices open all year round in future. There will presumably have to be additional staff by then so they should be able to keep someone on duty throughout the Season. ☺

AF/RF SIGNAL INJECTOR & TRACER

VIV MOORE ZS2VM

Almost indispensable items in the ham shack are a signal injector and a signal tracer. Injecting a signal in turn at various points in a piece of equipment can help to determine whether the audio or RF stages are working and to identify a stage where a failure has occurred.

Used in conjunction with the injector or on its own, a signal tracer also helps one to check for failures: by checking the output of a stage, the presence or absence of a signal indicates whether it is working or not.

A simple audio amplifier serves admirably as a signal tracer.

Signal Injector

Figure 1 is the circuit diagram for an audio/radio frequency injector. It is powered by a 9V battery.

The RF signal (consisting of wideband noise) is generated by the zener diode, which is switched on and off at a frequency in the audio range by the multivibrator circuit Q1, Q2. The signal is amplified by Q3 and Q4.

The output provides a modulated tone across a wide radio frequency spectrum and can be used to test audio as well as radio frequency circuits up to many megahertz. It can also be used as a signal source for an antenna noise bridge.

It is often merely necessary to bring the output probe *near* the circuit to be tested, without actually making a physical connection.

It will also seldom be necessary to make an 'earth' connection between the unit and the equipment under test, although an earthing fly lead with crocodile clip could be provided for use

when required.

Figures 2a and 2b provide an actual-size foil pattern for etching your own PC board and a component overlay. The foil is shaped to enable the board to be fitted into a tubular case to the end of which a tip is fitted so that the complete unit becomes the probe.

Signal Tracer


In use, the signal that you inject, or an AF or a modulated RF signal provided normally by the equipment under test, may need to be traced through the various stages with the aid of a suitable audio amplifier. This is especially true if there is no output from the loudspeaker of the faulty equipment.

Figure 3 shows a circuit for a small bench amplifier that will do the trick. It is straightforward and needs no description.

Note, however, that the battery, switch, speaker, 270k level control 'pot' and 4.7 μ F input capacitor are not accommodated on the board but must be mounted in the housing or prod.

This circuit was published in QSX some years ago with a few additional components so that it could also be used for measuring AF voltages in the millivolt range.

A PC board foil pattern – actual size – is provided in Figure 3a, with a component overlay in Figure 3b.

The photograph shows the basic units without their cases or any off-board components. The two units could be mounted together in a metal box but it may be necessary to screen one from the other to avoid stray pickup. 

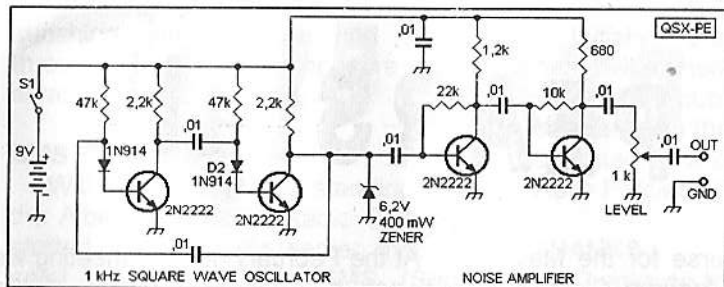


Fig. 1 (left) – Circuit diagram for the signal injector described above.

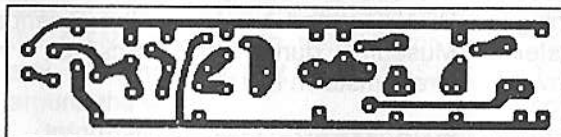


Fig. 2a (left) – foil pattern (actual size)

Fig. 2b (below) – The component overlay of the signal injector

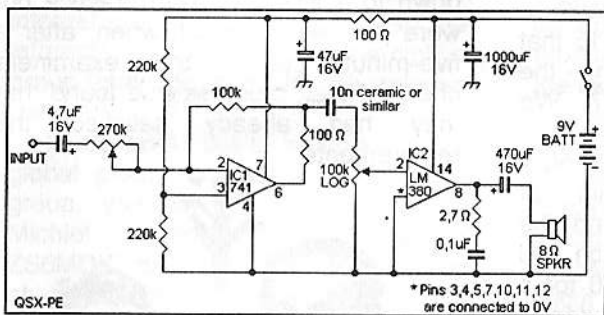
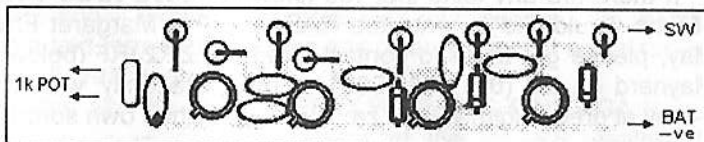


Fig. 3 – Circuit diagram for the signal tracer.

Below – Photo of the main boards of the injector (left) and tracer (right)

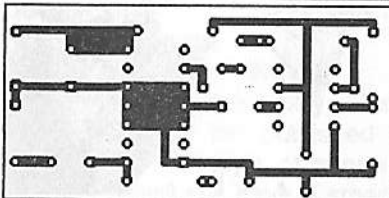


Fig. 3a (left) – Foil pattern for the tracer (actual size)

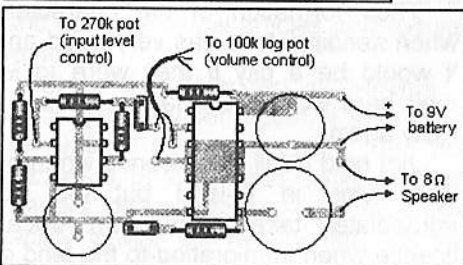
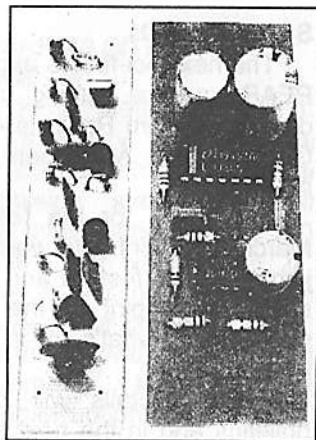
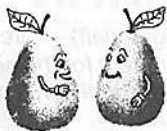


Fig. 3b (left) Component overlay for the signal tracer





PEARStalk

RAE CLASSES

The next RAE course for the May exam will start on 25 January. Classes will be held on a Thursday evening from 19h00 to 21h30 at the Disaster Management Centre, Westview Drive, Mill Park.

If there are any folks that you know of who would like to write the RAE in May, please get them to contact Greg Maynard on tel. (041) 581-0991 or by e-mail at greg-re@mweb.co.za.

■ Last month the gremlins – you *do* believe in gremlins, don't you? – moved a paragraph onto page 15 that should have appeared in the highlighted block on page 17. We repeat:

The cost of the course, including a PEARS manual, membership of PEARS up to March 2002 and the entry fee for the RA examination, will be R200 for an adult and R180 for a family member or a bona fide student.

SCI-FEST 2001

The next Sci-fest is approaching us. PEARS will be putting up a working display of "Ham Radio in Action" in the Grahamstown Monument, up on the hill.

The dates for the festival are 28 March to 3 April. We would like you to join us at the festival and demonstrate some ham spirit to the visitors and show them "what's up in the world of ham radio".

Further details will be given on bulletins and in the next few issues of

QX.

At the February general meeting we will see a video presentation of the PEARS stand located in the Science Museum during the Sci-Fest in Grahamstown last year.

TWO HAPPY HAMS

Margaret France ZR2BCG and Jim ZR2JRF (below) passed their CW tests recently with flying colours, much to their own surprise.

They thought they were settling down to a little pre-exam practice but were pleased as punch when, after a five-minute bash, the examiners checked their progress and found that they had already satisfied the requirements.



Their formation of the characters when sending, too, was very good and it would be a pity if they were to let their hard work over many months go rusty again.

Jim held a full ham licence when he was living in G-land but did not immediately take out a South African licence when immigrating to the land of

sunshine. He therefore had to go through the whole procedure from scratch.

SMS FOR AMATEURS

With technology not standing still, the Alberton Amateur Radio Club has started an automatic server that will send a message via SMS (Short Message Service) to any subscriber on the MTN or Vodacom network, or to any other network that supports SMS around the world.

Information like upcoming club events, interesting news, and a whole lot more can be sent in a text format of 160 characters that will reach the recipient immediately. This service is free to any ham operator.

A group for your own club or interest group could be set up so that information relating only to the club or group may be sent to the relevant members.

If you would like to be added to the global group, or start your own club group, you can get in contact with Michiel (pronounced "Magiel"), ZS6MDK, on 083-212-5711 or e-mail at zs6tdk@hotmail.com or dekock_m@mtn.co.za. — SARL NEWS

RADIO ZS IN A5 FORMAT

As reported previously, Radio ZS will henceforth be published in A5 format after the style of a newsletter, although it will still have a smart cover and carry technical articles and regular features.

Since it is intended to become a monthly publication again, it will regain its value as a medium for the exchange of ideas and views through readers' letters page/s – an important facility where the two-monthly ZS fell far short of the mark.

Initially, the President and his namesake, Hans van de Groenendaal will edit the publication. When they are satisfied with the format the task will be allocated to a councillor, according to Hans Potgieter ZS6ALJ.

THANKS

Thanks go to Al Akers ZS2U for his donation of two steel cabinets to PEARS, and to Julie ZR2EY and Trevor ZS2AE for giving Santa Claus some colour on the cover of last month's QSX-PE. It might look a simple task but believe me, it takes time and gives your wrist a real run-in!

WEFAX WORKING FINE AGAIN

Users of the PEARS weather fax transmissions from Baywatch noticed a considerable hum on the signal, producing heavy wavy vertical lines in the picture.

Colin ZS2AO carried out some on-site tests which failed to pinpoint the problem, then took the whole station home for closer inspection. After replacing all the caps in the power supply, he re-installed the equipment and it is now working fine again.

Many thanks, Colin.

AMSAT OSCAR-40 SITUATION LOOKS GOOD

Early on Wednesday, 13 December, telemetry transmissions from AO-40 stopped while work on the 400-N propulsion system was in progress. An investigation by the AO-40 development team was begun.

Good news is that the spacecraft is now again fully under control. AMSAT-DL provided the following summary of recent command team actions following the interruption:

On December 25, 2000 at 21:45

UTC command station ZL1AOX transmitted an L-band reset command which included an initialization block to switch 'on' one of the two S-band transmitters on board AO-40.

Just after the first attempt, AO-40's S-2 beacon was received by Ian, ZL1AOX, on 2401,305 MHz. The signal strength was S-5 to S-6, which compares to S-2 when the beacon was last heard during testing in early December.

At the time of reception, AO-40's approximate distance from ZL1AOX was 61,470 kilometers.

AMSAT-NA President Robin Haighton, VE3FRH, said that the excellent news of contact with AO-40 through the L-band uplink and S-band downlink was received with joy and relief by AMSAT members around the world.

Ian, ZL1AOX, succeeded in loading IPS software and a minimal operational package into AO-40. As a consequence, AO-40 sent telemetry (A blocks) that enabled an analysis of the status of the spacecraft.

A quick look at received telemetry instrumentation showed that helium pressure was essentially where it was

following the first 400-N motor burn. Also, it appeared that a few temperature and current sensors either failed or are showing incorrect values. The on-board sun sensors appeared to be fine and were showing a solar angle that was near predictions.

Additional software was to be loaded and the various uplinks would be verified before a command would be sent to turn on the 2-meter equipment again.

BOUVET ISLAND

Chuck Brady 3Y0C (N4BQW) had the picture below, taken of himself on Bouvet Island on 24 December, transmitted via weather satellite to the States, and thence by e-mail to Dennis ZS1AU in Cape Town. It is thought to be a world first.

Chuck is one of America's prominent astronauts. He has been in space on the shuttle a few times.

He is understood to be one of five scientists on Bouvet who are conducting a survey into the wildlife down there and also trying to find out why there is such a high mortality rate with newborn seal pups.

Their research has shown that about 250 seal pups die weekly during the breeding season, which is now.

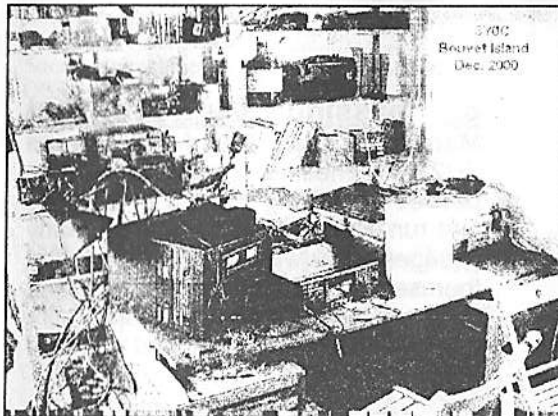
The backup team in the USA, on a request from Chuck, sent a copy to ZS1AU Dennis with his best wishes for Christmas and the New Year.

3Y0C can be heard most mornings at 08:30 SAST on +14.345MHz. You can also try for him on 14.295 at night working "split frequency" and experiencing large pile-ups!

The second photo (below) of



the ham shack on the Island initially made me a little less embarrassed



about the organization in my own shack. Then I remembered that I am not located on a remote island devoid of mod. cons.

SO YOU THOUGHT GPS IS GOOD?

While an ordinary global positioning system (GPS) receiver uses information carried by radio signals from a constellation of satellites to calculate its position, NASA's new BlackJack GPS receiver looks at the *radio waves themselves*.

By making precise measurements of how the signals are distorted or delayed along their way, the BlackJack provides a new way to study Earth's gravity field and atmosphere.

While typical GPS can determine to about 20 meters, BlackJack pinpoints with an accuracy of 2 to 3 *centimetres!*

MIR KAPUT

Still in space, it was reported that the Russian controllers again lost radio contact with the Mir space station temporarily.

Mir, some 14 years in space "turned off" for more than a day just after

Christmas. Officials however said this posed no danger, and Mir will still be brought back to Earth on 15 March.

I must remember to wear my tin hat.

SECOND SOLAR PANEL INSTALLED ON ISS

Late last year, the crew of the US space shuttle Endeavour successfully deployed a second solar panel installed on the International Space Station to produce electricity for future scientific experiments.

Deployment of the first solar panel was started but interrupted after just 13 minutes because of two loose cables that got in the way. Because of this, flight managers decided to proceed slowly with the deployment of the second panel.

The two 600-million-dollar panels are the first of four sets of solar panels that will eventually power the space station, providing enough electricity through their 66 000 photovoltaic cells to run 15 homes on Earth, Nasa officials say. At 73 metres, the panels' length exceeds the wingspan of a Boeing 747.

Until now, two smaller 10-kilowatt panels have supplied the station's two Russian modules, Zarya and Zvezda, with electricity. The new panels will provide an additional 64 kilowatts.

The ISS is expected, in due course, to become the brightest shining 'star' visible from the earth.

■ There have been some magnificent passes of the ISS over PE. On the better passes it is currently, to my eye at least, the second brightest object in the night sky apart from the moon – Ed. ☐



on your birthdays:

January

- 21 Margaret France ZR2BCG
- 22 Judy Tremere XYL of ZS2BWB
- 22 Bill Atteridge ZS2V
- 24 Anthony Bruyns ZR2APB
- 24 Michael Mkrakra
- 28 Rosemary Osborne XYL of ZS1KP

February

- 2 Shirley Winter XYL of ZS2MC
- 2 Ginny Pullinger ZS2GIN
- 3 Tom Davies
- 7 Joan Bowles ZR2ABA
- 10 Mark Hugo
- 10 Lynne Crothall ZS2MM
- 11 Dirk Ligthelm ZS2D
- 12 Peter Lunow ZR2PEL
- 14 Arno du Preez ZS2ABT
- 16 Mike Hanslow ZS1RMS

on your anniversaries:

January

- 23 Natasha ZR2BCS & Anthony Bruyns ZR2APB
- 29 Margaret & Ken Victor ZS2OC

February

- 1 Lizette & Nicolas Oelofse ZS2N
- 5 Anita & Jacques Human
- 15 Vanessa ZR2VM & Chris Scarr ZS2AAW

on your baby daughter born 15 December, **Lizelle and Dean Russouw.**

on your granddaughters

Marlene ZR2ED and Colin Ashwell ZS2AO (first time Nannies) and **Ewalt ZS2EHB** (2nd time round) (and of course congrats to the moms and

dads too!)

on passing the CW test

Margaret ZR2BCG and Jim France ZR2JRF. These two septuagenarians passed with flying colours at the very first run, putting to *great shame* many younger ZRs who have not applied themselves with the persistence and diligence that Margaret and Jim displayed. (Have I rubbed that in sufficiently?—Ed)

on your new callsign JP

Human, who has obtained the call ZR2XTC.



Welcome to New Members

Anne and Norman Dowler ZS2XF, ex ZS6ALQ, who QSYd from Deneysville to Colchester a year ago but only now back in business on the ham bands. Also **Colin Whitehead** of Uitenhage, a November RAE entrant.

We're glad to have you and hope you will enjoy your association with PEARS, you three.

On the Move: Stefan **ZR4SED** was at JayBay during December; Jim Duck **ZR2JRD** has been visiting family at Henties Bay;

Bill Hodges **ZS2ABZ** leaves on 20 January visiting the UK for a couple of weeks;

Not So Well: Louis Saunders **ZS2CB** in jovial mood despite his serious illness. Pay him a visit when you feel *you're* in need of an uplift!

Shaunna Laaks, XYL of ZR2ABU, had some kidney stones removed and will be monitored for future developments. ☹

Your Society's Committee

Chairman, Awards	Beavan Gwilt ZS2RL	360-6968
Vice Chairman, QSN collation & mailing	Trevor Scarr ZS2AE	367-1746
Secretary, repeaters, packet	Chris Scarr ZS2AAW	368-1344
Treasurer, Asset Control	Clive Fife ZS2RT	367-3203
Social, Refreshments	Bill Hodges ZS2ABZ	581-2580
QSN Editor	Garth Laaks ZS2HB	368-1101
e-mail the Editor at	glaaks@iafrica.com	
Technical Classes, RAL	Greg Maynard ZS2RE	581-0991
Librarian	Neil Thomas ZR2NI	487-2403
Special Events	Ewalt Bouwer ZS2EHB	933-3482
Youth Affairs	Greg Maynard ZS2RE	581-0991

PEARS' VHF/UHF & Other Services

REPEATERS

Town VII	# 145.050/650	
Town VIII	# 431.050/438.650	Knysna
Cockscomb	145.000/600	Lady's Slipper
Colesberg	* 431.075/438.675	Noupoort
Cradock	* 145.050/650	Uitenhage
Grahamstown	* 145.150/750	

* These form PE's long-range 2-metre repeater system, also linked to which are East London 145.775 MHz repeater, 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 (ZSONTP)	144.625
Packet Rose Switch (ZSOGHF-3,046101 (144.675 in/out) or 046102 (UHF out to BBS)).....	144.675
2m Beacon (ZS2VHF CW ID, FSK) (horizontally polarized, 160W ERP).....	144.415
6m Beacon (ZS2SX 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

Sunday Bulletins

PEARS bulletins are transmitted on Sundays immediately after the SARI 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 as well as Cradock and environs. PEARS' 7098 or 3640 kHz transceive facilities are also remotely linked as needed. In addition the SARI's 40m operations on 7082 or 7066 kHz or Hamnet's 7070 kHz can be remotely patched into the 2m network, in receive-only mode or with full transceive capability for interactive events.

Date	Prepare and Read on 2m Repeater link
14 Jan	ZS2RT
21	ZS2ABZ
28	ZS2HB
4 Feb	ZS2RE
11	ZS2EHB
18	ZS2RL
25	ZS2AE

DIARY DATES
<i>JANUARY</i>
19-21 PEARS VHF-UHF Contest
19 General meeting, incl. bring and braai, with visiting SARI President & VP
<i>FEBRUARY</i>
1 Wrinkly Rave at 'ZYC'

*** We Like Being Your Society! ***