

Q S X P E

ZS2PE

FREQUENCIES:

Bulletin	3640 Khz
	7102 Khz

National Call	145.5 Mhz
P.E. Repeater	145.05/65
Grahamstown	145.15/75
Lady's Slipper	145.10/70

*Port Elizabeth Branch of the
South African Radio League*

P.O.Box 462, Port Elizabeth. 6000.



16 JUN 1981

PORT ELIZABETH BRANCH - NOTICE OF MEETING.

THE NEXT MEETING OF THE PORT ELIZABETH BRANCH WILL TAKE PLACE AT THE Y.M.C.A., HAVELOCK STREET, PORT ELIZABETH ON FRIDAY 19TH JUNE, 1981. PLEASE MAKE AN EFFORT TO ATTEND.

Ex-Community Chest chairman dies at 73

R.I.P.

HERALD REPORTER

MR FRANK ERNEST JOHNSTONE, 73, a retired bank official and past chairman of the Community Chest, died in Port Elizabeth's Provincial Hospital yesterday, after a short illness.

Mr Johnstone was born in Aliwal North and attended Grey High School.

He worked in both the then Northern and Southern Rhodesias for the Standard Bank. His career culminated with his opening of the bank's first South African office in Tokyo in 1964, when he was the Far Eastern representative.

He retired from the bank in 1968, after four years in Tokyo.

Returning to South Africa, he worked for PE Tramways as the sub-accountant.

In 1980, he joined Wolff and Johnstone, of which his son, Derek, was a partner, as the company's financial adviser. He worked part time on the company's



Mr F E Johnstone

books for the past 10 years.

Mr Johnstone was a leading radio ham and was chairman of the Community Chest for four years.

He was a keen Rotarian as well as a founder member of the Old Grey Union. While in Tokyo, he also received an Ambassador's Award for Freemasonry.

He leaves his wife, Hildegard, and three children, Reg, Derek and Tessa.

Om Frank, ZS2KS, who went Silent Key recently, was a very active Ham and loved his DX-ing, especially on 15 metres where he could often be heard talking to the JA stations. Frank had lived in Japan for quite a while as representative of the Standard Bank there, and came to know many of them as his friends. Frank had been a member of the League for many years and a member of the Port Elizabeth Branch since 1968. He served on the Committee as Chairman, Vice Chairman and Treasurer at various times, and was very much involved with the setting up and running of the Ham station for the Community Chest Carnival which was held at the Old Fairview Race course in 1970 and 1971.

The Branch extends its deepest sympathy to his wife and three children.

HAM ADS.

WANTED: Antenna Tuner similar to Hamrad HC 75 or HC 250. Please contact Dudley ZS2AW 10 Cromwell Street, Grahamstown.

FOR SALE: Heathkit Equipment: 2 metre transverter (28mHZ I.F.) R100.

Transmit/Monitor Scope R100

Receiver/Monitor Scope R100. (Heathkit I.F. and coils for other I.F.'s available).

All in first class working order. Please contact Barry Jackson ZS2SG, Phone 303052 (Home) or 48211 Ext. 494 (Work).

FOR SALE: Several Philips Zephyr VHF mobiles, mostly boot-mount, high band (OK for 2m). Some 10 watt, some 25 watt. To clear, As Is, R25 each.

Several "Mitre" portable VHF transceivers, very small units, made by Rank-Murphy. High Band (OK for 2 m) with nicad battery packs. Sorry, no chargers. As Is. R15 each.

Heath SB101 SSB/CW transceiver. 80 - 10 metres with matching AC power supply/speaker. In working order, With manual. R350.

Yaesu FT 100 transceiver. 80 - 10. 12v/240v. builtin power supply. With speaker, microphone and manual. R200.

One Philips Commander repeater unit (old P.E. repeater). Power supply burnt out. OK as parts. First caller gets it FREE.

Please contact Brian ZS2AB 303498 (home) or 21173(business).

MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT Y.M.C.A., HAVELOCK STREET, PORT ELIZABETH ON 15th MAY, 1981.

PRESENT: 18 members and visitors.

APOLOGIES: ZS2CY and Audrey, ZS2DD, ZS2HZ and Kevin Eastwood.

The Chairman welcomed all the ladies and members and extended a special welcome to Mr. Alastair Scott, the guest speaker. He also welcomed Andy Weyers, a new member to the Branch and wished him a long and happy association with the League. He also stated that in view of the status of the guest speaker, the talk promised to be very interesting.

MINUTES: The Minutes of the meeting held 10th April, 1981, having been published in QSX-PE and circulated, were taken as read, proposed by ZS2AB and seconded by ZS2KX.

ARISING: -

FINANCE: The Chairman apologised for the absence of the Treasurer, and said that he was not well, and had not absconded with the funds of the Branch! In view of this, the financial report would be held over till next month. The account for the electricity for Ladies Slipper had been received, and the Branch still had a credit balance.

CORRES: Letter of thanks to the Treasurer from Max Levin.
Letter from J.H.R. Branch - this letter was read to the meeting as there was an appeal for funds to the repeater fund. The Chairman said that although the Port Elizabeth Branch was relatively small, it had never been necessary to appeal to other branches for assistance.

GENERAL: The Chairman extended congratulations to Selwyn ZS2SS for his outstanding achievements on 6 meters. He had made many JA contacts and also KH6 in Hawaii and had now succeeded in working VK6 two-way on 6m. The Chairman also said that he had had a discussion with ZS6OF after the League A.G.M. re the awarding of the various trophies and it was stated that had the League known of Selwyn's achievements he would have won this trophy. It was decided that the Branch should keep H.Q. informed of any further achievements by Selwyn, or anyone else for that matter and ask them to file the information for consideration for next year's 6 meter trophy.

The Chairman asked if there was any information of the May P.M.G.'s examination and Clive Fyfe replied that he had written and that it had been a fair paper, much better than the November paper.

The Chairman said that the A.G.M. motions had been discussed at the Committee meeting but if anyone wished to know of these, they could ask him after the meeting. The question arose as to the increase in subs. and entrance fee, and he explained what had taken place at the A.G.M. and said that subs were increased to R15 and the entrance fee to R10.

There being no further business, the meeting was closed at 8.25p.m. and tea was taken. Thereafter, a most interesting talk, accompanied by slides, on the micro-wave system, P.E. Radio, and Intelsat satellites was given by Mr. Alastair Scott, who is a lecturer at the P.E. Technikon, and is very au fait with his subject.

sgd:
R.W. Schönborn ZS2RS
Chairman

sgd:
MT. Colson ZS2OB
Secretary

REMEMBER - the Port Elizabeth Branch is your Branch - you only get out of it what you put into it. Don't be the one who sits on the sidelines and just criticizes. Do something constructive and be regular in your attendance at meetings.

DX YOU MISSED.

After many setbacks (construction-wise) I was able to get my homebrew 6 meter transverter (Mark V) operational; a 4-el yagi had also been constructed during the hassle period. I was set to go at about the beginning of March and started looking for signals that might be lurking about on '6' waiting to be investigated, only to find that on this band you have got to make it happen yourself.

After a few phone calls I managed to locate a suitable c.w. I.D.'er circuit and set about construction of a 6 meter Beacon (50,112MHZ). This unit is housed in the Accu-keyer box, and operates in conjunction with the keyer.

Then on the 28th April, it started to happen when I was called by G4BPY on 10 meters reporting that the beacon was being copied at his QTH. A cross-band QSO followed with a 439 report received. Next was G4JCC with a 539 report.

7th April brought KH6EQI beacon (50,100 MHZ) signal 419. KH6IAA was copied calling me at 54 but was unable to copy due to QRM. 8th April KH6HI was worked with a report 329 received. 10th April KH6IAA was worked on SSB (5 1).

KH6EQI beacon has been heard subsequently but never very strong or for any duration of time during May.

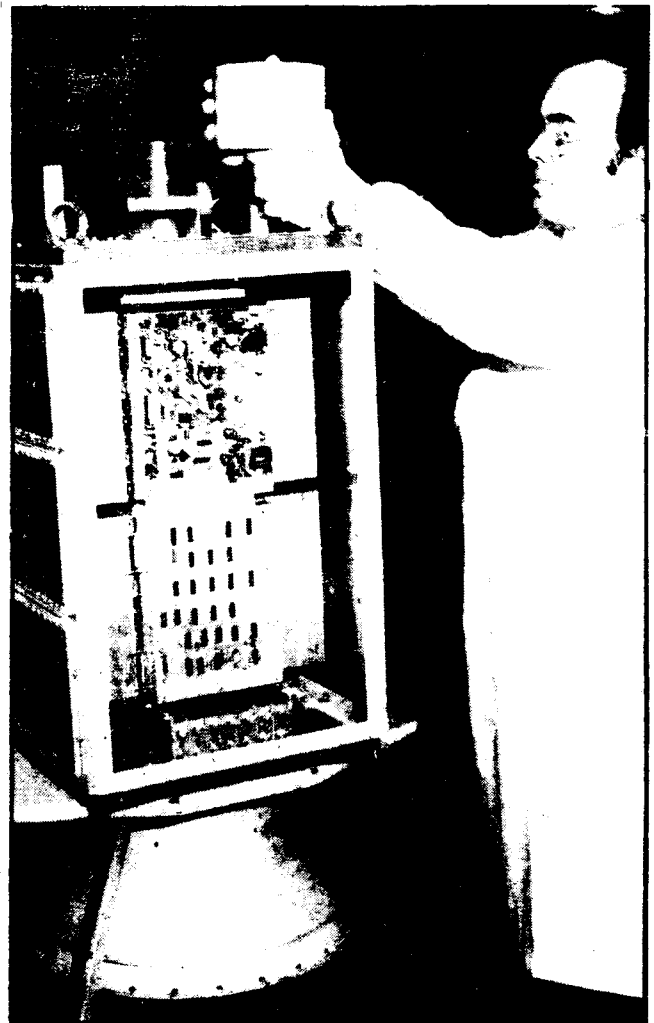
On the 17th April ZS6LN was worked on back-scatter cw, the following day ZS5TR es ZS6DM were also worked back-scatter SSB.

The next opening occurred on the 27th April when JR6HGG was worked cw es SSB. Subsequent openings to JA occurred on the 28th, 29th April, 10th, 11th, 15th, 16th, 19th, 21st, 22nd May. The 22nd also brought JD1YAA (Ogisawara Island) on cw. A total of 15 JA stations have been worked covering divisions 0, 1, 2, 3, 4, 5, and 6.

The 15th of May was probably the highlight of all up until now because it brought VK6AM two-way SSB 52/52 on 52,005MHZ. Possibly the first VK-ZS 2 way on 52 MHZ.

May I express my gratitude to Brian ZS2AB for technical help on the transverter, Lionel ZS2DD es Mike ZS2FM for their encouragement and advice and to Wolf ZS2WG for the cw I.D.'er circuit. Your contributions helped it all "happen"

See you on Six. de Sel ZS2SS.



Satellite for hams

LONDON. — A satellite that will beam words and pictures from space to schools, colleges and radio amateurs is being built at Surrey university in southern England. Dr Martin Sweeting, project manager for the UOSAT satellite, is seen here adjusting the Tipmass mounted on top of the satellite stabiliser to ensure it always points to earth. Inside the tipmass is a magnetometer which will measure the earth's magnetic field.

Due for launch by NASA in July or September this year, UOSAT has a number of important new features of special interest to school science groups and radio amateurs. It is designed to transmit data, including pictures of the earth's surface, in a form which can readily be displayed on a domestic tv set. It will carry a voice synthesiser for 'speaking', in English, information on telemetry, experimental data and spacecraft operations. Most standard VHF receivers will pick up the data with a simple fixed aerial.

The satellite has cost about £120 000 — compared with £10-million for a commercially produced equivalent of similar size and complexity.

Experiments on board will study the earth's magnetic field, solar activity and the aurora. It will make possible a detailed study of how solar activity affects the transmission of radio signals, something of particular interest to radio amateurs. Also on board is an earth pointing camera covering a 500 x 500 km area of the earth's surface. The image will be formed on a charge-coupled-device and stored in the satellite's computer until the moment for its transmission to earth, where it can be displayed on a domestic tv set.

UOSAT will be launched into a polar orbit with a period of 95 minutes at a height of 530 km. The expected life before re-entry is estimated at 4-5 years. It is being built entirely at the University with the aid of a number of British sponsors and the USA and West German sections of AMSAT (Amateur Satellite Corporation).



"Let's be fair, they've been pretty accurate up till now."

RADIOTELEGRAFIE.

Gedurende die vroeë jare van hierdie eeu, toe die Marconi-maatskappy van Engeland 'n laërfrekwensie-langgolfradio-stelsel ontwikkel het, is daar besluit om so 'n langgolfstasie vir kommunikasie met die Verenigde Koningryk en ander Statebondslande in S.A. op te rig. 'n Ooreenkoms hiervoor is op 6 September 1922 tussen die regerings van S.A. en die V.K. onderteken en persone vir die stasie is naby Kaapstad gekies.... een by Klipheuwel vir die sender en een by Milnerton vir die ontvanger. Die send-antennas het 12 reuse staalmaste vereis, elk 250m hoog en met 'n massa van 180 000kg.

Teen die tyd dat die eerste vier maste opgerig was, was langgolfradio egter reeds verouderd aangesien die Marconi-maatskappy intussen daarin geslag het om 'n kortgolf-radiostel te ontwikkel wat baie doeltrefferder oor lang afstande sou wees. Die regering van S.A. het 'n aanbod van Marconi-maatskappy aanvaar om liever die nuwe stel te installeer en verdere konstruksie van die langgolfstelsel is gestak. Die 4 voltoëde maste het 'n landmerk in Kaapstad geword en is eers sowat 20 jaar later afgebreek toe dit 'n gevaar vir vliegtuie geword het.

EERSTE RADIOTELEGRAM.

Dit was 'n besonder geskiedkundige geleentheid toe die destydse Eerste Minister, Genl. Hertzog, op 3 Desember 1924, die eerste radiotelegraafboodskap oor die nuwe kortgolfradio-stelsel ontvang het. Die telegram, waarvan 'n geraamde kopie in die Poskantoor museum te sien sal wees, is gestuur deur Sir Edgar Walton, destydse S.A. Hoë kommissaris in Londen.

RADIOTELEFOONDIENS.

Op 1 Februarie 1932, meer as sewe jaar later, het die eerste oorsese radiotelefoon-gesprek plaasgevind. Die koste van 'n drie-minuut-oproep na Londen was £6. Radiotelefoonkommunikasie oor Londen was ook na Australië, Indië en Noord Amerika beskikbaar. Kort na die uitbreek van die Tweede Wêreldoorlog in 1939 is die oorsese radiotelefoondiens opgeskort. Toe dit 6 jaar later, op 2 Desember 1945 hervat is, was dit aanvanklik tot die V.K. beperk.

(Meer volgende maand)

GRAHAMSTOWN OUTING.

On Sunday 28 June a work party consisting of willing Radio Amateurs will leave Port Elizabeth, bound for Grahamstown, where, at the repeater site, they will enthusiastically set about clearing the grass, weeds and small bush around and in the repeater enclosure. They will also assist with replacing the co-axial cables feeding the antennae and possibly the receiver antenna itself. WILL YOU BE THERE? If lack of transport is to be your excuse, then phone Dick, Brian or Marge who will endeavour to find you a seat on a sponsored vehicle. We are depending on you to assist. Remember! Many hands make repeater work.

+++++

'A simple call of
'Hey, Waiter', would have
been more than enough, Sir!'

SPECIAL OFFER

ONE ONLY!
Kenwood TS 120S



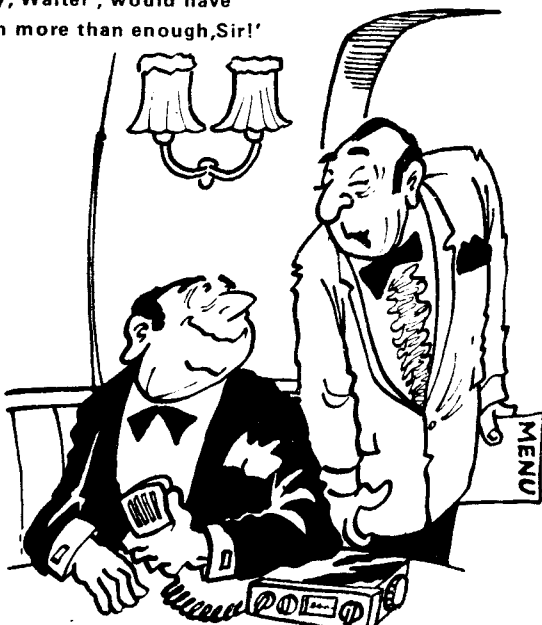
TS-120S

This rig has been in use for some months
and is offered in immaculate condition.
FULL MANUFACTURERS GUARANTEE!
FREE MC70 MICROPHONE! R200 OFF!

CASH PRICE R595.

Contact Dick ZS2RS. Summit Distributors.
25 Reed Street. Phone 544545.

PLEASE NOTE OUR NEW PHONE
NUMBER.



AIR TRAFFIC CONTROL

The ATC is used to assist the air traffic controllers at an airfield to identify the various aircraft on their radar screen.

A different code will be given to each aircraft in the area.

When the ATC receives a signal from the ground station it automatically transmits a coded signal to the ground station. The aircraft's position is then identified on the radar screen.

The system consists of a transponder, a control panel for selecting the codes and an antenna which is identical to the DME antenna.

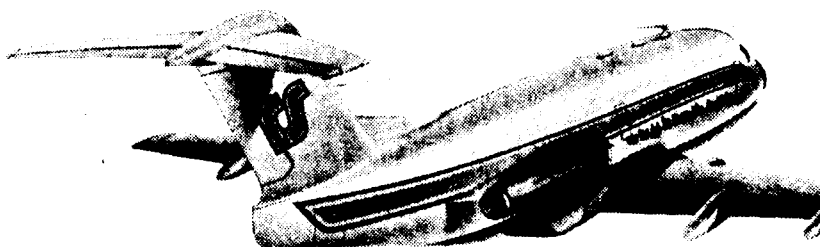
The transponder is designed for remotely-controlled continuous duty operation. No adjustments or controls are available to the operator other than those on the remote control panel. The receiver portion of transponder operates on 1030 mc and will only accept signals modulated with pulse pairs spaced at either 8 and 21 or 17 and 21 microseconds, depending on the position of the mode switch.

When a proper interrogation pulse signal pair spaced at either 8 or 17 microseconds is received, the transmitter portion sends a pulse coded reply consisting of two to eight accurately spaced pulses on a frequency of 1090 mc. The first and eighth pulse of each reply code are called framing pulses and are always transmitted. The second through seventh pulses are called information pulses and may be transmitted in any combination from zero to six depending upon the code selected by the crew. Any one of 64 codes may be selected.

When an altitude interrogation pulse signal pair spaced at 21 microseconds is received, the transmitter portion sends a pulse coded reply automatically, consisting of two to fourteen pulses. The first and thirteenth pulse of each reply code are called framing pulses and are always transmitted. The fourteenth (special position identification pulse) and the second to twelfth pulses are called altitude information pulses and may be transmitted in any combination of one to twelve depending upon altitude. The altitude information received from air data computer in digitized altitude coding, is fed into the transponder encoder and will enable the ground station indicator to present altitude information next to airplane target.

A suppression pulse system is connected between the ATC and the DME systems since both systems are pulse coded and operate in the same frequency range. The ATC suppresses the DME so there is no interference between systems.

DOUGLAS ZR6W0



ON SALE THIS MONTH

KENWOOD



TS-130S SPECIFICATIONS

(GENERAL)

Frequency Range: 80m Band 3.5-4.0MHz
40m Band 7.0-7.3MHz
30m Band 10.1-10.15 (10MHz WWV)
20m Band 14.0-14.35MHz
17m Band 18.068-18.168MHz
15m Band 21.0-21.45MHz
12m Band 24.85-24.99MHz
10m Band 28.0-29.7MHz

* Receive only. After government approval authorization, you can modify TS-130S very easily to transmit on the new 30, 17, and 12 meter bands.

Mode: SSB/CW
Antenna Impedance: 50 ohms
Frequency Stability: Within 100 Hz during any 30 minutes period after warmup
Within 1 kHz during the first hour after 1 minute of warmup.
Semiconductors: IC 26
Transistors 18
FETs 91
Diodes 190
MPU 1

Power requirements

TS-130S		TS-130V	
RX 0.7A	13.8V DC	RX 0.7A	13.8V DC
TX 19A	13.8V DC	TX 4A	13.8V DC

Dimensions

TS-130S
241 (9.6)W x 94 (3.8)H x 293 (11.7)D
mm (inch)
TS-130V
241 (9.6)W x 94 (3.8)H x 235 (9.4)D
mm (inch)

Weight

TS-130S 5.6kg (12.4lbs)
TS-130V 4.9kg (10.8lbs)

TRANSMITTER

Final Power Input: TS-130S
80m Band 200 Watts PEP for SSB operation
160 Watts DC for CW operation
12m Band 160 Watts PEP for SSB operation
140 Watts DC for CW operation

Carrier Suppression: Better than 40dB
Sideband Suppression: Better than 50dB
Spurious Emission: Better than 40dB
Harmonic Radiation: Better than 40dB
Audio Input Impedance: 600 ohms to 2,600Hz within -6dB

(RECEIVER)

Sensitivity: 0.25uV at 10dB S/N
Image Ratio: Better than 50dB
IF Rejection: Better than 70dB
Selectivity: SSB/CW WIDE 2.4kHz (-6dB), 4.2kHz (-60dB)
SSB NARROW 1.8kHz (-6dB), 3.3kHz (-60dB)
with optional YK-88SN filter
CW NARROW 500Hz (-6dB), 1.5kHz (-60dB)
with optional YK-88C filter
or 270Hz (-6dB), 1.1kHz (-60dB)
with optional YK-88CN filter

Audio Output Impedance: 4 ohms to 16 ohms
Audio Output: 1.5 Watts

Price R895

Less 10% Cash Discount

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