Q S X
P E

ZS2PE
FREQUENCIES:

Bulletin	3640 Khz
	7107 Khz
National Call	145,5 Mhz
P.E. Repeater	145,05/65
Grahamstown	145,20/80
Lady's Slipper	145,10/70

Port Elizabeth Branch of the
South African Radio League

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

- 9 MAY 1980

MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT THE Y.M.C.A. HAVELOCK STREET, PORT ELIZABETH ON 18th APRIL, 1980.

PRESENT: 13 members.

APOLOGIES: ZS2KX, ZS2LO.

The Chairman welcome all to the meeting and also the Secretary who had been in hospital. He also said that Bette ZS2LO had just gone into hospital for a knee operation. He also apologised for the late delivery of QSX-PE and said that perhaps that was the reason for the small turnout.

MINUTES: The Minutes of the meeting held 21st March, having been published in QSX-PE were taken as read, proposed by ZR2CJ and seconded by ZS2AO.

ARISING: The Chairman announced that at the next meeting, there would be a talk on T.T.L. Logic by Bert ZS2EA and this would be publicised on bulletins and in QSX-PE which would be posted in good time. Bert knows his subject and puts it across very well. Members were very welcome to bring their friends and anyone else interested.

CORRES: A letter had been received from Instant Software offering 73 mag-asine to members at a very special price and several members, ZS2RS, ZS2AE and ZR2CJ wished to take advantage of the offer.
The Chairman read a letter regarding the Nedlloyd Spice Race in which a ham was taking part.

FINANCE: The Treasurer said all debts had been settled.

GENERAL: The Chairman said that on Sunday, he and Brian ZS2AB would be going to Grahamstown to set up the Repeater.

The Branch would be participating in the Hobbies Fair in June, and this was very good publicity for the Branch and the League. We would decorate the stand and make it as attractive as possible. Pamphlets would be distributed and members would be needed to operate the station and also to answer questions from the public. Norman ZS2RI asked if an Apple Computer could be displayed and this would be welcome. Peter ZR2CJ asked about an Oscar display as Oscar 9 would be in operation at that time. The design and layout would be dis-cussed at the next meeting.

The Chairman gave a short resumé of the League A.G.M. and mentioned those motions which had not gone according to our voting. A postal ballot for all members was going to be held with regard to the move of Headquarters from Cape Town to Division 6. The other motions were as follows:

Motion 4   Fees of councillors would be waived for their term of office.
"   6   Lost.
"   11   There was a 99% chance of guest licences.
"   14   Withdrawn because of the above.
"   12, 15 and 16. Carried.
"   17   Lost.
"   18 and 24.   Carried.
"   30   Withdrawn.
"   31   Council would investigate and report back in Radio ZS with 4 months.
"   32   Withdrawn.

The Chairman said that the A.G.M. had gone off well although the vanue was rather small. Port Elizabeth was due for another A.G.M. in about 1985 and he said he would like to see it hosted by both the Port Elizabeth and Algoa Branches together. Discussion had taken place on the increased licence fees. A request from the floor had been made for hams not to use 53-54 MHz for testing as radio controlled planes used these frequencies and accidents could take place due to interference. The observer from Transkei had thanked the Branch for QSX-PE.

Norman ZS2RI showed an antenna and said that 35 of these were for sale from Soekor and members could make offers for them.

Enquiries were being received from interested C.B.'ers with regard to a course for the November Amateur exam and the Branch hoped to run these again.

With regard to a change of venue, Peter ZR2CI suggested the use of the Yacht Club as this was not situated in a security area of the Harbour, but that the meeting would have to be held on a Tuesday or Thursday. This was left in abeyance.

As regards the Building projects to be run by the Branch, Roger ZR2BS was busy with the artwork for the V.H.F. Preamplifier. It was hoped to standardize these and make the kit available at a price attractive to members. Trevor ZS2AE said he had had enquiries from several members of Algoa Branch who would like to join in the project and the Chairman said they would be welcome.

The question was raised whether the Branch could provide communications for various events, such as motor races, and this would be looked into.

There being no further business, the meeting was declared closed.

sgd:
R.W. Schönborn ZS2RS
Chairman

sgd.
M.T. Colson ZS2OB
Secretary

Slow scan television (SSTV) is by far the most fascinating mode available to amateurs, but alas, also the most difficult one in which to become active, especially for those who are not construction lovers, or very rich, as without one of these two requirements, equipment is just not available at reasonable prices particularly in this country. There are, of course, some commercial SSTV units available, but prices are high, and a monitor alone can cost as much as a good HF rig. Computers can be used for SSTV, but here money is the name of the game, and plenty of it, too.

All these factors aside, imagine the fun and excitement of sending pictures, which usually are of good quality, to a station thousands of miles away, by means of your HF equipment, and of receiving from the distant station pictures of the operator, his equipment, his family, projects he may be busy with, circuit and component data, etc.

Slow scan TV is just what the name implies. Whereas on normal commercial TV, one complete frame of 625 lines is sent every 1/50 second, resulting in full motion capability, SSTV standards are such that a picture of 120 lines is sent every 8 seconds. This is good enough to provide useful definition provided the object or lettering being televised is not too small or detail too fine. Of course no movement can be tolerated with such a long frame time. Other speeds of transmission are being experimented with overseas but these will not be true SSTV, which occupies no more bandwidth than a normal SSB signal and hence is permitted on HF.

The simplest form of monitor for SSTV is one using a very long persistence cathode-ray tube, where the image lasts long enough to view the complete picture after 8 seconds has passed. Unfortunately whilst such tubes are very common as surplus overseas, they are almost unobtainable here, except perhaps new, at new prices!

Apart from the CRT with its deflection and focus coils, the rest of the monitor circuitry is quite straightforward, and many good designs are available in various books on the subject.

Generating SSTV signals for transmission is basically also simple, again, of course, if one can get hold of the CRT etc. Several test signals can be generated digitally, but these are usually dedicated circuits which will only create a specific signal.(Computers excepted again). The SSTV signal consists of audio tones in the range 1200 to 2300 Hz. Sync pulses are needed to tell the receiving equipment when to start a new line and a new frame, and here the 1200 Hz tone is used. A pulse of 5mS is sent at the end of each line to tell the monitor that a new line is about to start, and a 30mS pulse is sent at the end of each complete picture, so that the trace will return to the top of the screen ready for the next picture. 1500 Hz is used to denote black and 2300 Hz represents white, and all frequencies inbetween result in shades of grey. Filters in the monitor take care of the various frequencies and cause the brightness of the CRT to vary accordingly.

There are two generally used methods of transmitting images. The first of these is the flying-spot scanner. In this device, a raster is created on the face of a CRT, and the light from this raster is focussed by a lens system onto the photograph or drawing which is to be transmitted. The light reflected from the subject, line by line, is detected by a photo-multiplier tube, which is a version of the old photo-electric cell, but which has a very high internal gain, and the output from the PMT controls the frequency of a voltage-controlled oscillator which generates the necessary tones for transmission. Sync pulses are added so that the end result is a useable SSTV signal.

The other method is, of course, the camera. Here again the unit needs to be somewhat specialized. A standard vidicon camera such as is used for closed-circuit TV cannot be utilised as it stands, due to the fast scan speed at which it operates. A method of putting such a unit to use for SSTV consists of taking several samples of the video on each scan of the camera and storing these samples in a memory. The contents of the memory are then read back at slow-scan speed for transmission.

I don't doubt that the computer boffins will work out a way of interfacing a camera with their machines. Before you rush out and buy a computer, let me add that what I have seen of SSTV copy by computer to date has been dismal to say the very least. Noise appears to have a drastic effect on picture quality, and comparisons between a computer and a long-persistence monitor leave much to be desired. Filters may help here but this remains to be seen.

In conclusion, it seems generally that SSTV is not easy to break into with good results, but for those who have friends Stateside who could be persuaded to acquire tubes etc. and send them out here, the problem of building a cheap SSTV station is not too great. Worldwide there seems to be no shortage of SSTV operators and DXCC SSTV was worked from the States as long ago as 1973. For any who may care to explore this facet of our hobby, I recommend as essential reading the 73 SSTV Handbook by Don Miller and Ralph Taggart. This is available from S.A. Radio Publications for about R7.

CQ SSTV   CQ SSTV   CQ SSTV

PORT ELIZABETH BRANCH.

THE NEXT MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE WILL BE HELD AT THE Y.M.C.A. HAVELOCK STREET, PORT ELIZABETH ON FRIDAY 16th MAY, 1980 AT 8 p.m.

Among the subjects for discussion will be the forthcoming Hobbies Fair.

GUEST SPEAKER.

AFTER THE BUSINESS OF THE MEETING, THERE WILL BE A TALK BY BERT ELLIN ZS2EA ON T.T.L. LOGIC.   THIS TALK SHOULD PROVE VERY INTERESTING AND WORTHWHILE. BRING YOUR FRIENDS ALONG AND ANYONE ELSE WHO MAY BE INTERESTED.

Amateur Radio shines in Sun City!
At SARL's DX-expedition

THE 1980 Sun City Radio Amateur DX-Expedition undertaken by members of the SARL over Easter was a great success, and just over 700 stations in 25 countries were contacted by the two stations, H5ADX and H5ASC.

This DX-Expedition was organised by Irvine Green ZS6BPE, in conjunction with Southern Sun Hotels, who are behind the whole concept of Amateur Radio's role in creating world understanding and friendship.

After a lot of planning and behind the scenes action, as well as last minute scurries, the DX-Expedition was set up next to the Gary Player Country Club at Sun City, and the whole station took about 3 hours to get operational.

At 6 am on Friday 4th April, the first call went out from H5ADX and the station contacted was Jack Scott ZL2ADX of Matuaka in New Zealand. After that initial contact, made by Reg Green, ZS6J, the station was swamped by Australian and New Zealand stations, to be followed by USA, Japan and Europe.

The DX-Expedition was also active on OSCAR 8 (the amateur radio satellite) and 9 contacts were made in the two passes that were accesible during the 4 days, (including the Cape and Mauritius).
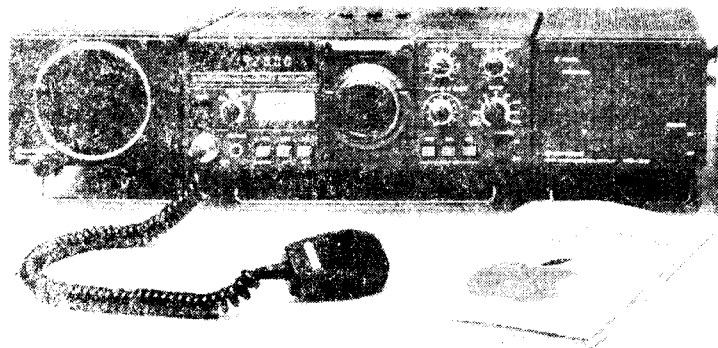
Expedition

On behalf of all those involved in the DX-Expedition, SARL would like to thank Southern Suns, Jurgens Caravans, Leisurcor, Tecnetics and Genop.

Another amateur DX-Expedition is planned for Mmabatho Sun in October.

The operations tent of the Sun City Radio DX-Expedition over Easter Week-end

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