



# AWA Newsletter

# 105

October 2014

A Member  
of the  
SARL



**Antique  
Wireless  
Association of  
Southern Africa**

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## AWA Committee:

- \* President—Ted ZS6TED
- \* Vice President—Jacques ZS6JPS
- \* Technical Advisor—Rad ZS6RAD
- \* Secretary/PRO—  
Andy ZS6ADY
- \* Western Cape—John ZS1WJ
- \* KZN—Don ZS5DR

## Reflections:

Once again, it is that time of the year where salt mine interference takes its toll on my radio plans. The last few weeks we have been busy preparing for our annual ISO listing and it has been hectic. However, I am sure you will all understand my dilemma.

I was hoping to have had this Newsletter out before the AGM, but maybe it's a good thing it did not go, because now we can report on what happened there and who is who in the zoo once again.

No surprises, Ted ZS6TED, was unanimously voted in for a second term. An addition to the committee is the introduction of a Vice President, and Jacques was voted in to be the first for the AWA. He will become President in waiting as he spends this next year as

Vice President.

The AWA Rules of Association are to be updated and if you are interested in getting a copy of them, you will find it on our website.

It was so good to meet with those who were able to attend the AGM. Of course we would be absolutely ecstatic if we could get more to attend, but thanks to KARTS for the tremendous venue, the great flea market and of course the braai after the AGM, where many words of wisdom, enchantment and endearing times were passed around. (Nice words for rag-chewing)

Of course there was the usual banter present as at any gathering of hams, the remembrances of those past and what about the future.

Those looking for more

equipment and those wanting to get rid of some.

With that all, the common thread being Antique Wireless.

All in all it was a really pleasant gathering of the hams in a pleasant environment and we so wish that more of you could join us on these occasions.

We do believe, the AWA is a special bunch of people with a similar interest in amateur radio and that there will always be an AWA is no longer in contention. We look forward to drawing in some more of the younger generation and seeing them take their place at the helm of this wonderful organisation one day.

Best 73

DE Andy ZS6ADY

## WIKIPEDIA

In 1832, James Lindsay gave a classroom demonstration of wireless telegraphy via conductive water to his students. By 1854, he was able to demonstrate a transmission across the Firth of Tay from Dundee, Scotland, to Woodhaven, a distance of about two miles (3 km), again using water as the transmission medium. In December 1901, Guglielmo Marconi established wireless communication between St. John's, Newfoundland and Poldhu, Cornwall (England), earning him the Nobel Prize in Physics for 1909, one which he shared with Karl Braun.

On 25 March 1925, John Logie Baird of Scotland was able to demonstrate the transmission of moving pictures at the Selfridge's department store in London, England. Baird's system relied upon the fast-rotating Nipkow disk, and thus it became known as the mechanical television. It formed the basis of experimental broadcasts done by the British Broadcasting Corporation beginning 30 September 1929. However, for most of the 20th century, television systems were designed around the cathode ray tube, invented by Karl Braun. The first version of such an electronic television to show promise was produced by Philo Farnsworth of the United States, and it was demonstrated to his family in Idaho on 7 September 1927.

Television, however, is not solely a technology, limited to its basic and practical application. It functions both as an appliance, and also as a means for social story telling and message dissemination. It is a cultural tool that provides a communal experience of receiving information and experiencing fantasy. It acts as a "window to the world" by bridging audiences from all over through programming of stories, triumphs, and tragedies that are outside of personal experiences.

## CW Activity:

There seems to be quite a flurry these days with CW on the DX bands. It still amazes me the amount of stations there are that are active on CW on the bands, with the exception of course on the local bands where things are pretty dead.

With the occasional nets that are still active locally, there does not seem to be much happening down the lower end of the band.

Where are the days where one could call CQ on 7020 and it would not be long before someone came back to you and you could have a good old ragchew with dots and dashes. I think most of the guys who frequented those frequencies are long gone.

I was reading on the SARL website the other day there is someone trying to get CW going again to train people either on weekends or

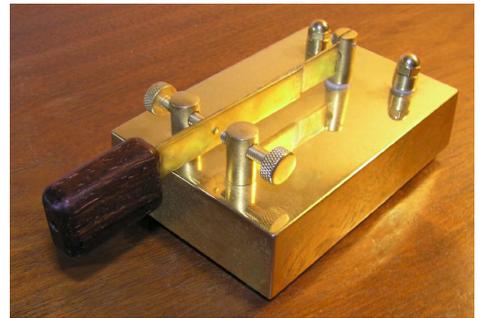
on a weekday evening. I don't know how successful they have been as I have not seen any replies to the thread and I can't seem to find it again.

I think we have been down this same road many times about encouraging people to use CW and have also not been very successful at all, so we will plod along doing our own thing and if there be any newcomers who want to join in and learn CW, or revive their CW skills, then that would be absolutely great.

Sometimes a net may seem a bit challenging to call in to, but there is always someone listening out after the net has closed, just in case there is someone who may want to try calling in. Don't hesitate. Just do it and see who comes back to you. You may sweat a bit again, but that goes with the territory.

The encouragement always seems to come from those already doing CW, so thanks to all those who keep us going.

We look forward to hearing some of you back on CW again. Its good times and you will experience the same thrill you did the first time.



The Golden Cootie

## SSB activity:

The bands are certainly not at their best again these days and SSB really seems to be up and down as far as decent propagation is concerned. Yet still there are many on frequency and when I read of another 100 who have recently written the ARE, then it looks like we may get busier on the bands.

I just hope people don't become distraught by the conditions and then wonder why they ever did this and went to the expense of buying a radio when they can't speak to Jan Plank in Pikketburg, because conditions are not great.

What is that Ben Brand said, as the favourite saying goes, "Alles sal regkom, ons weet net nie wanner nie". So don't lose hope in what's happening.

It's also good to see how many new call signs are appearing on the AWA net and on the AWA website. An interesting topic of discussion was "Why antique or valve radio", which happened a short while ago.

While on the subject of topics, we need to remind some of the wafflers, which is most of us, that we need to limit our discussion to no longer than 2-3 minutes on the nets, otherwise it just takes so long to get through the list of people who call in.

We would much rather go for a second or third round, than just be able to squeeze everyone in one round during an hour and a half net. If you can't control yourself, then get an egg timer and limit yourself. Believe me, they work well.

I should know, because I am one of the guilty parties.



## AM:

Conditions generally on AM have not been that great, but we still get the odd Wednesday evening where it all seems to work fine and of course, Saturday mornings are mostly good, with the occasional up and down in conditions.

The number of stations joining us seems to vary with the conditions, but there are the usual group of non-combatants that are there every Saturday.

Often I hear comments about "why AM". My response "why not". Lets face it, music does not sound the same on SSB and one often has to tell people they are 100kc's off frequency, but AM is so wide, one never has that problem. Even with the true blood AM receiver, one can hear another station anywhere up to 10 MC above or below you

without any problem.

It makes for exciting times, but also makes it so much easier.

The audio quality of a good AM transmission cannot be repeated on SSB. Maybe that's why so many of these new rigs have graphic equalisers on them, to try and give that same depth on SSB as one would get on AM. But sorry guys, its still not the same.

I guess one has to have grown up with AM to really appreciate it for what it is. The old days of Springbok Radio, LM Radio, BBC world etc were certainly never to be repeated, even though FM came in to take over.

Then end result, if you have a rig that is capable of transmitting AM, come along and join us and let the bug bite. You won't regret

it.



Homebrew AM

## AWA AGM and KARTS Flea Market

The AGM this year was held in conjunction with the KARTS (Kempton Amateur Radio and Technical Society) flea market. The reason was that we were offered the use of the hall at the venue used by KARTS, and of course there was the opportunity for KARTS to have a flea market as well. This turned out to be a good result for both parties.

The flea market was well attended from early morning with a big rush after the gates opened, to the slow easy relaxed time of the AGM and a braai fire with packs arranged for after the AGM.

We had 17 people attend the AGM and the following points were discussed:

1. The meeting was opened by Ted ZS6TED, who read the mission statement and gave a brief overview of the year happenings while he has been in the post of President. Ted thanked the committee who had served with him over the year and pointed out a few of the interesting points about AWA.
2. A financial statement was given pointing out that the funds in the AWA are still well in the black, thanks to the sale of goods donated by Tubby ZS5CQD. Donations were also received from Ray ZS6QM and Chris ZS3B for postage of the Newsletter. Expenditure was mainly around the postage for the Newsletter, the licence fee for ZS0AWA (a 5 year licence fee was paid), SARL membership and the website registration for the year.
3. Voting for a new committee and a President was put forward. Ted ZS6TED was unanimously voted in for a second term as president and the present committee to remain the same for the next year.
4. On asking for any points of discussion, John ZS5JF, requested that the Rules of Association be made available to all by placing a copy on the AWA Website. This was of course an oversight when the website was designed, but is still a work in progress. The PRO did point out that copies of the Rules were sent out to all the members in 2008 when they were first drawn up and all those who have registered recently on the website for membership have been sent copies of the Rules of Association.
5. A motion for the appointment of a Vice President was put forward, seconded and approved. The appointment would be for a Vice President to be a part of the committee and would be automatically the next in line for appointment as President when the present President left after his term of office. The outgoing President would automatically become part of the Committee as stated in the Rules of Association. Jacques ZS6JPS
6. This led to a motion for a change in the Rules of Association to be completed. This was seconded and accepted and the Rules of Association will be revised and put on the Website.
7. A motion for a membership fee for all members was proposed in order to ensure the funding of the AWA. There was quite a bit of discussion around this point. It was put to a vote by those present and the decision was to remain the same as it is at present. No membership fee is asked, but if funding does become a problem, members would be asked to make donations to the AWA.
8. The PRO/Secretary requested assistance in getting the Newsletter to those who do not have email. It was suggested that a list of those who get the Newsletter through the normal mail channels be placed in the Newsletter. If anyone who receives the Newsletter by email, lives in close proximity to those who get it by normal mail could then print a hard copy of the Newsletter and see that person gets a copy, it would be greatly appreciated. We cannot foresee any change in the postal system for a while and most of the mail members are now at least 3 Newsletters in arrears. If you do receive the Newsletter by normal mail and do have access to email, we would suggest you let us know and start receiving the Newsletter electronically.
9. Jacques ZS6JPS revealed a new initiative on the website, namely the AWA shack of the year. Members are encouraged to log in on the website and put photo's of their shack on the site to enter into the contest. The winner will get a floating trophy to display in their shack and this will get passed on every year to the winner of the contest.

There being no further motions or points for discussion, the meeting was closed and all those present were thanked for their attendance.



The gathering around the braai fire while traditional burning of raw meat takes place. That is for some, while others enjoyed bread out of a tin.



Ted ZS6TED and Rad ZS6RAD, running the AWA SSB net from the venue

*Don't be fooled, these men are not giants, the tables were really small.*



Kevin ZS6KAT, gave a talk on amateur radio using antique through to the modern.

## Jennings the Pioneer: from Richard ZS6TF AWA Historian

For the past year your historian has been researching the dawn of radio in South Africa and particularly the activities of Edward Arthur Jennings who is credited with the independent invention of wireless telegraphy at the same time as Marconi, a story almost lost in the mists of time. Each lead followed up from multiple sources have traced back to a book entitled "YOU HAVE BEEN LISTENING.." written by Eric Rosenthal in 1974 which is a history of the early days of radio transmission in SA published by the SABC to mark the 50<sup>th</sup> anniversary of the first transmission on 1<sup>st</sup> July 1924. The following material stems from Rosenthal's personal contact with Jennings in the 1940's and what follows is an extract from the book.

Born in London in 1872, Jennings began his working life as an instrument maker with a firm which supplied telegraph apparatus to railway companies. He was so skilled in precision work that he was taken over by Whitehead, the firm that built the first modern naval torpedoes. Whitehead placed him in the department specializing in firing mechanisms. There he met the late Robert Whitehead himself, who, as a reward for some special job, presented him with a half-crown.

Jennings later moved to the Government Instrument Factory at Holloway, near London. While in this position he heard that Sir Ben Duff, Postmaster-General of the Cape Colony, was recruiting staff in England. Jennings put in his application and was accepted.

After two and a half years in Cape Town, Jennings was transferred to the Port Elizabeth Telephone Exchange. This was the oldest exchange in South Africa and had been opened in 1882. 'Even in 1896, when I arrived,' Jennings told me, 'there were barely 200 lines, and my job was to repair the very primitive instruments.' The instruments, he explained, consisted of a wooden diaphragm that operated a microphone with carbon granules. 'When you wanted to ring,' he said, 'you pressed the button until something happened.'

There was so little telephone traffic in Port Elizabeth that, for days at a time, many subscribers did not use their instruments. As a result the carbon granules, designed to be moved by the electrical vibrations set up in the human voice, became packed together and prevented the sound from coming through. To remedy this young Jennings made an experiment that was to become historic. 'To replace the carbon granules in the microphone', he said, 'I tried to find something that would not pack together- brass filings, then copper and then silver.'

He filed the silver off an old watch-chain that he had and, to prevent the filings from sticking together through damp or disuse, he made the microphone out of a glass tube. The tube was about half an inch in diameter, his original idea being that the tube should be given a slight turn every time the phone was used. 'Like many theories, however,' Jennings said, 'it did not work.'

But chance intervened to produce a surprising phenomenon. Jennings was living on The Hill, overlooking Port Elizabeth. 'We had an electric bell on the front door', he said, 'and to my great surprise I noticed that, every time somebody pressed it, my experimental receiver in the back room would give a loud crackle. When I looked closely I found that the silver filings had joined together and that it required a gentle tap to loosen them again.'

What had happened was that Jennings had stumbled on the principle of the 'Coherer', also used by Marconi and other inventors in the earliest types of wireless receivers. 'My mystification', he continued, 'became greater when I discovered that a similar but much louder crackle was sometimes heard from a greater distance. Electric trams had just started in Port Elizabeth, to replace those drawn by horses, and our house in Sherlock Street was not far from the North End terminus. About 150 yards from the telephone, at St. Paul's Church, was a cross-over in the overhead trolley wires. Whenever trams passed that place I got a colossal electric spark, to be heard right down the road. Taking a galvanometer I saw its needle swing heavily on one side as the trams went by. Since there was no question of any physical contact I decided to call in expert advice.'

Four well-known personalities of those days visited Jennings's house to witness the demonstration. One of them was Mr (afterwards Sir) George Cory, then Professor of Chemistry at Rhodes University College, who was later to become famous as an historian for his researches in the Eastern Cape. R. H. Hammersley Heenan, Chief Harbour Engineer for the Colony, and Major Robert Travers Tamplin, member of the Cape Parliament for Victoria East, were also present. Lastly, there was Chubb Meredith, head of the Grey High School in Port Elizabeth, and a science teacher with high qualifications. None of them could understand the cause of the spark. Hammersley Heenan jokingly suggested that it must be a message from Mars. The town buzzed with the news and scores of people called at the house to marvel at what was going on.

Meanwhile Jennings continued to work on fresh improvements. He built a Ruhmkorff coil to induce bigger and louder sparks. In this work he was assisted by a young girl who later became his wife. Many years later, when she was an old lady, I met her. 'I remember so well', she told me, 'holding wires for him and helping to screw things together.'

'To make that Ruhmkorff coil', Jennings said, 'was a job calling for almost Oriental patience, as well as for good eyesight. It took almost half a year to finish. The coil was a foot long and about half that in diameter. Over seven miles of copper wire as fine as the bristles of a hairbrush were wound round 72 sections, each about one-sixth of an inch thick, and each in turn separated by a minute disc of thin vulcanite. All this had to be done by a treadle lathe. As for the all-important condenser, this was made up of 200 sheets of tinfoil, each eight inches by six inches. The battery employed was a small four-cell accumulator, with a mercury

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interrupter. When the battery was switched on, a torrent of bluish-white sparks up to six inches in length was emitted with a deafening noise and a viciousness almost terrifying. When transmitting, the spark gap was reduced to less than an inch!

Some time later, Jennings, helped by a colleague from the Telegraph Department, organized a more ambitious experiment. This was to send a signal from the house in Sherlock Street to a primitive receiving station in Cooper's Kloof about half a mile away. Wire netting was hung from a flagstaff and, when the signals came through, the flag was run up. A still more impressive attempt followed, this time in the old Port Elizabeth Town Hall. Between two balls of solid brass, each three inches in diameter, another smaller ball about three-quarters of an inch in diameter was hung from the end of a wire. One of the larger balls was earthed while the other was joined to the Ruhmkorff spark coil. By means of an ordinary telegraph a torrent of sparks was sent across the gap. All the spectators were able to satisfy themselves that there was 'positively no deception'.

Thomas Henshall, the Port Elizabeth Postmaster, encouraged and helped Jennings while interest rose still further when, some months later, reports came through that Guglielmo Marconi, news of whose research activities had now also reached South Africa, was doing almost exactly similar work across Salisbury Plain. In 1898, a Scottish nobleman, the Marquis of Graham, visited South Africa on behalf of Lloyd's, who wished to improve the existing facilities for navigation at sea. On reaching Port Elizabeth the Marquis decided to examine the lighthouse facilities at Bird Island in Algoa Bay. Someone who knew of Jennings's experiment suggested that a 'telegraph without wires' might be installed to the mainland. Jennings described what followed: 'A small party was made up to which I was invited. We landed on Bird Island, took observations and, before starting back, collected penguin eggs. Our return voyage of 38 miles to Port Elizabeth was anything but comfortable. There was a westerly gale and instead of the three hours it took us nearly seven. However, we had learned a good deal about wavelengths and reception conditions on the island. It was such a painful and exhausting experience that the Marquis in his depression crushed the penguin eggs in his pocket and brought them home in omelette form!' Safely back on shore, Jennings dismantled his apparatus and brought it by horse and cart to Cape Recife. There he erected his transmitter in the lighthouse of the Donkin Reserve. In July 1899 he achieved a record transmission distance of eight miles.

Here was the opportunity for scepticism, and a would-be 'clever' journalist immediately made a scurrilous attack in which he suggested that there were 'secret wires' to carry the message. To answer this Jennings carried out a fresh test. 'All that the lighthouse keeper used as an aerial', he said, 'was a strip of wire-netting about a foot wide. It worked so well that it was joined on to a Morse tape machine printer. This I sent to Mr J. P. Edwards, Chief Engineer of the Cape Post Office, who was sufficiently impressed to suggest to Sir Somerset French, the Postmaster-General, that funds be allocated to help me in my further research.' Hopes rose high when Colonel Tamplin, who had seen the demonstration in Sherlock Street, made a formal request in Parliament. Unfortunately the responsible minister, none other than the celebrated John X. Merriman, made an answer which is regarded as classic in its stupidity. 'Life', he said, 'is troublesome enough with ordinary telegrams. With wireless telegraphy it will be unbearable.' In spite of this snub, and the discouragement of further enterprise, Jennings remained optimistic. On 8 May 1899 he appeared before a Port Elizabeth audience in a crowded town hall, with M. M. Loubser, a leading merchant, in the chair. Mr Loubser referred to recent reports from overseas about rival inventors and then continued: 'Mr Jennings has been silently pursuing his studies for several years, on the same important scientific subject, and has arrived at results almost as satisfactory as those obtained by Professor Marconi. All the more credit is due to Mr Jennings, as his pursuits have been carried on in his spare hours.' Jennings's paper was read by a Mr A Marshall, The inventor gave his own demonstration, however, and the Eastern Province Herald reported that 'The new invention bids fair to triumph in every possible way. One of the instruments was taken into a room at the rear of the platform, and with the door closed a telegraphic message handed up by one of the audience was transmitted and received by the second instrument placed on the platform.'

In July 1899 a new trial between Port Elizabeth and the mail steamer Gascon, lying in Algoa Bay three miles out, was carried out. Again the results were excellent and received good publicity. After explaining the principles on which the apparatus worked, and the success already achieved by Marconi overseas, one newspaper report concluded: 'It is to be hoped that South Africa, having an inventor of her own, will not be behind the rest of the world in the advancement of this important science.'

He returned to his normal Post Office activities and remained in Port Elizabeth until 1914 when he was transferred to Johannesburg. He retired just nine years later to Pinelands in Cape Town. There I (*Rosenthal*) met him in the 1940s when he was an old man. I asked him whether he was still interested in radio. 'I sometimes listen to it,' he said with a smile, 'but that is all.' He died in 1951."

Jennings should, have been recognized as one of the outstanding pioneers in wireless telegraphy, but his work was overshadowed by the activities of the better connected Marconi in Europe and America.

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## LIST OF MEMBERS RECEIVING NEWSLETTER THROUGH THE POSTAL SYSTEM.

**Johan Alberts – ZS1B**  
Tennantstraat 13  
Windsor Park  
Kraaifontein

**Frank Nortje – ZS1MA**  
3 Fuller Road  
Kreupelbosch

**Fred Scheepers – ZS1FCS**  
22 Wagenaar Street  
Monte Vista

**Hennie Janse van Rensburg – ZS1HR**  
Joubertstraat 48  
Montagu

**Frank Martins – ZS1MF**  
25 Reyger Street  
Bothasig

**Tony Beckett – ZR1TT**

**Peter Wagener – ZS2PC**  
Fort Beaufort

**Malcolm Kriel – ZS4SM**  
Langenhoven Park  
Bloemfontein

**P A Williams – ZS4PAW**

**Koppies**

**James DuToit – ZS6JDT**  
13 Dirk Viljoen Ave  
Hennospark  
Centurion

**Sidney Gabriel – ZS6GQ**  
9 Waboomstraat  
Brackendowns

**Basil Macdougall – ZS6BDS**  
Wilropark

**Henk Langenhoven ZS6PHM**  
2 Villa Perez  
218 Revier Straat  
Miederpark  
Potchefstroom  
Ray Steedman – ZS6QM

**Garth Close – ZS6ANO**

**B.J. van Eeden – ZS6BLL**  
14 Hoffman Road  
Orchards X13  
Pretoria

On the left of this column is a list of all the members who receive the AWA Newsletter via the postal system, which, as many of you are aware, has collapsed totally.

Should you live in close proximity to any of these members, and are able to print out a copy of the Newsletter, we would greatly appreciate it if you could print a copy, and at your convenience, drop it off at their residence.

Hopefully this will not carry on for too long and we will be able to get back to using our postal system again.

There are a few others, but arrangements have already been made to provide them with a copy of the Newsletter.

Thanks

**CONTACT US:**

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**Get your backdated  
issues at  
<http://awasa.org.za>**

**Antique Wireless Association  
of Southern Africa**

**Mission Statement**

Our aim is to facilitate, generate and maintain an interest in the location, acquisition, repair and use of yesterdays radio's and associated equipment. To encourage all like minded amateurs to do the same thus ensuring the maintenance and preservation of our amateur heritage.

Membership of this group is free and by association.

**Notices:****Net Times and Frequencies:**

Saturday 06:00—AM Net—3615  
Saturday 07:15—Western Cape SSB Net— 3630  
Saturday 08:30— National SSB Net— 7140; relayed on 14140  
Saturday 14:00— CW Net—7020  
Wednesday 19:00— AM Net—3615, band conditions permitting.

**AWA Website is operational;**

Visit the website at : <http://awasa.org.za/> and register on the site.

**For Disposal:**

Barry ZS2H has let me know he has the following items for disposal.  
TS510 with power supply and built in speaker. Fully restored and operational condition.  
Eddystone EA12 receiver, fully restored.  
Wanted: Heathkit DX150 series receiver.  
Please contact Barry on 041 360 3052 or email him [barglen29@gmail.com](mailto:barglen29@gmail.com)

**Visit to Bloemendal Tx Station.**

Jacques ZS6JPS will be arranging a visit/tour at the Bloemendal (now Meyerton) transmission station on January the 17th (Saturday). Any interested members can contact him so that he can relay the numbers, perhaps we should state a cut-off date (say Dec 12?). Some have also expressed interest in visiting the Meyerton station in the morning and then Hartrao in the afternoon - not sure whether we should rather split it (Meyerton in Jan and Hartrao in Feb), but perhaps those interested in joining could comment whether they'd like to do both in one day or not. We can also look at renting a micro bus for transport.

Details of the Meyerton station is below, and a schedule of all their transmissions at this link: <http://www.mwlist.org/sw.php?locationid=40000067>

*Meyerton Short Wave Broadcasting Relaystation, operated by SENTECH in South Africa. Transmitter Power: 25kW, 100kW, 250kW, 500 kW. Used to transmit international programs for all of Africa by Channel Africa (from Johannesburg), BBC World Service, Radio France International, Voice of America, Deutsche Welle (Germany), Adventist World Radio, IBRA Radio (Sweden), NHK Radio Japan, and others. Also the domestic Afrikaans service Radio Sonder Grense is transmitted on shortwave frequencies from here.*

**Coordinates:** 26°35'34"S 28°8'24"E

**Contact Jacques ZS6JPS at [jscholtzp@gmail.com](mailto:jscholtzp@gmail.com)**