



A Member of the SARL



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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
- \* Historian—Richard ZS6TF

# Newsletter

# 117

Nov 2015

## Reflections:

Another AGM has come and gone and another president is elected to serve a term at the head of the AWA.

12 years and the tenth President brings a new era to the AWA as usual. Congratulations Jacques and looking forward to your term at the helm.

This was certainly a well attended AGM, with 30 people present, it hasn't been so well attended since the days at Rand Airport.

Kevin ZS6KAT gave a talk on Echolink and you will find more on that further in to the Newsletter.

The cherry on the top of course was seeing the final results of Richard and Co's efforts at the Museum of the SAIEE. One can see immediately that there has been a lot of effort and hard work put in to the radio

shack and the rest of the museum.

What a pleasure to be associated with such a fine institution as the SAIEE.

Cliff ZS6BOX and myself visited the SAIEE some five or more years ago to see what the chances were of us getting a foot in the door at that stage, but they were very involved in a lot of building work and refurbishment then and it did not seem appropriate to try.

But here we are a good number of years down the road and we can see the results of all the hard work that has been put in to restoring a fine piece of South African heritage. I don't think that the praises can ever be sung too loudly for the fine effort that has been made by all.

Of course the conference

room is extremely modern and has all the latest amenities to hold something like our AGM.

Please visit our website and read about the history of the SAIEE and get to know what it's all about.

Richard will be running the SAIEE museum station on a regular basis and if you would like to get involved with what they are doing there, he is the man to contact.

On behalf of the AWA I would like to thank all the members and management of the SAIEE for the opportunity to use the facilities for the AGM and say that we look forward to a long and lasting relationship between us.

Best 73

DE Andy ZS6ADY

## WIKIPEDIA

### Wireless Telegraphy

During his visit to the Paris Exposition Universelle in 1889 the Serbian-American engineer Nikola Tesla learned of Hertz's experiments with electromagnetic waves using coils and spark gaps and proceeded to duplicate those experiments. Tesla came to the conclusion that Maxwell and Hertz were wrong in their findings that airborne electromagnetic waves (radio waves) were being transmitted and instead attributed it to what he called "electrostatic thrusts",<sup>[41]</sup> with the real signals being conducted by Earth currents.

By 1891 he had developed various alternator apparatus that produced 15,000 cycles per second and developed his own very large air gaped coil, known now as a Tesla coil. Tesla's primary interest in wireless phenomenon was as a power distribution system. By 1892 he was delivering lectures on high potential/high frequency alternate currents<sup>[46]</sup> and went on to demonstrate "wireless lighting" in 1893 including lighting Geissler tubes wirelessly. Tesla proposed this wireless technology could not only deliver power but could also be used for the telecommunication of information. In 1894, Thomas Commerford Martin published "The Inventions, Researches and Writings of Nikola Tesla", detailing the work of Tesla in the previous years. Tesla (like many scientists of that time thought, even if radio waves existed, they would probably only travel in straight lines making them useless for long range transmission.

His laboratory work and later large scale experiments at Colorado Springs led him to the conclusion that a world wide wireless system would have to use the Earth itself (via injecting very large amounts of electric current into the ground) as the means to conduct the signal to overcome this limitation. He proceed to develop an earth-conductive (wireless) system similar to the ground conduction systems proposed earlier which he thought could achieve his goal of wireless power transmission as well as communication. By 1900 Tesla had received financial backing of banker J. P. Morgan and other investors to try to implement his promised ideas of world wide wireless telecommunication in his very large Wardenclyffe Tower wireless transmission project. The project ran into many problems including Guglielmo Marconi starting regular transatlantic transmission in 1903 with far less expensive equipment. Financial backing dried up and Tesla had abandoned the project by 1906.

# AWA 2015 AGM

The 2015 AGM was held at the SAIEE center in Observatory for the second time.

It was well attended with a total of 21 attending the actual AGM meeting, and 30 people there for the group photo which was taken shortly after the AGM itself.

Ted ZS6TED our outgoing President and president for the past two years, gave his outgoing presentation for the past year.

Some of the points were:

Membership—our membership has increased over the past year to 224.

The QSO Parties run twice per year have been fairly well attended.

The finances stand in a good positive figure after the 5 year License was taken out last year and our annual SARL membership fee was paid.

The CW Net is still run on a regular basis and thanks to Barrie ZS6AJY who is always there as well as those who regularly come up on frequency.

The KZN Net was started this year by Don ZS5DR and is ably run by James ZS5ABW on Saturday mornings at 07:30.

The Western Cape net is also run on Saturday from 07:00 and is ably run by John ZS1WJ.

Kevin ZS6KAT started a relay of the National net on Saturdays on Echolink and gave a short presentation of how it all works.

It has been a good year for the AWA with good attendance on the Saturday morning nets. The topic of discussion which was started by Richard ZS6TF has still proved to be an attraction for those joining the net and much information is passed backwards and forwards.

Ted thanked the committee who has stood with him over the past two years. Ted congratulated Jacques ZS6JPS who becomes President elect for 2016 and then called for a vote for a new vice president.

Ted reminded all there that a motion was taken at the 2014 AGM to elect a Vice President who would then become president elect when the present President stepped down.

Two nominations were made for Vice president and seconded:  
Henry ZS6MC was proposed and John ZS1WJ.

Henry, stated that he did not think he was ready to accept the nomination at this stage. He thanked all for the vote of confidence but declined the nomination. This meant that John ZS1WJ, was nominated and accepted in as the Vice President for 2016 and future President Elect.

Ted them also requested the committee members who have served the last two years with him, should remain the same. ie Andy ZS6ADY as Secretary/PRO; Rad ZS6RAD as Technical Advisor; Richard ZS6TF as Historian. This motion was accepted by all present. Ted as outgoing President now becomes a member of the committee for the next year.

After the AGM, all were invited to visit the Museum which was recently opened in Innes House and a group photo was taken.

A vote of thanks to the SAIEE for the use of their facilities was put forward and a round of applause for the SAIEE outstanding work in maintaining our heritage.



## DXCC News

Sharon Taratula, ARRL Awards Branch Manager, reports that the following operations are approved for DXCC credit:

3W3MD - Vietnam; 2015 Operation  
3W3MD/p - Vietnam (Cham Island, IOTA AS-162);  
2015 Operation

### African DX

Burkina Faso, XT. Harald, DF2WO, will once again be active as XT2AW from Ouagadougou between 7 and 27 November. Activity will be holiday style using CW and SSB. QSL via M00XO.

Zimbabwe, Z2. The Daily DX" reports that Massimo, IZOEGB (ex-Z81B), is now working in Harare and has been issued the call sign Z21MH. Currently he is not active, but plans to have a station on the air within the next few months. Activity will be on 40 to 6 meters using SSB. QSL via IZOEGB.

Benin, TY. Michal, TY4AB is here for about three months while on a mission trip. He has been active on 20 meters CW around 19:00 to 22:00 UTC. QSL via the operator's instructions.

Algeria, 7X. Special event call sign 7T150LH will be active from the Berrouaghia club station from 15 to 30 November to celebrate the 150<sup>th</sup> birthday of the Cap Tenes light-house. QSL via the operators' instructions.

Ghana, 9G. Alan, G3XAQ is active as 9G5XA until 21 November. Activity is on the HF bands using CW. QSL via G3SWH. Liberia, EL. EL2DW is active from Monrovia until 17 December. Activity is on 20, 15 and 10 meters using SSB. QSL via KD4UDU.

Kenya, 5Z. Tefvik, TA1HZ, will be active as 5Z4/TA1HZ from the Amateur Radio Society of Kenya club station, 5Z4RS, in Nairobi between 26 and 28 March 2016. Activity will be on the HF bands and primarily during the CQ WW WPX SSB Contest (26 and 27 March). Log will be uploaded to LoTW. QSL via LoTW (preferred) or direct to his QSL Manager LZ3HI.

### African Islands

IOTA frequencies

CW: 28 040 24 920 21 040 18 098 14 040 10 114 7  
030 3 530 kHz  
SSB: 28 560 28 460 24 950 21 260 18 128 14 260 7  
055 3 760 kHz

Canary Islands, EF8. Juan, EA8RM, will be active as EF8U from the Las Palmas Contest station during the CQ WW DX CW Contests (28 and 29 November) as a Single-Op/All-Band/Low-Power entry. QSL via LoTW. Indian Ocean Tour. Peter, DL1RPL, and Soren, DL3RKS, will activate two islands in the Indian Ocean. Their tentative schedule and call signs are as follows: 19 to 25 November - Mayotte Island (AF-027) FH/DL1RPL and FH/DL3RKS.

27 November to 3 December - Reunion Island (AF-

016) FR/DL1RPL and FR/DL3RKS .

Activity from both islands will be on the HF bands by Soren on 20 to 10 metres using mostly CW with some SSB. Peter will be operating on the 2 m and 70 cm bands EME using WSJT65 and CW. More details and updates on Peter's activity can be found on his Web page at <http://www.dl1rpl.de>. QSL all callsigns via DL1RPL.

Senegal, AF-045. Members of Amateur Radio of Association of Senegal (ARAS) will once again be active as 6V1A from Goree Island between 27 and 29 November. Activity will be on HF bands mainly on SSB with some CW. QSL via 6W7JX.

Reunion Island FR. Anne, OH2YL, will be active as FR/OH2YL from Reunion Island between 22 November and 1 December. Activity will be on 160 to 10 metres using CW. She will also be active during the CQ WW DX CW Contest (28 and 29 November). QSL via her home call sign.

Reunion Island, FR. Stephane, F5UOW, will once again be active as FR/F5UOW from Reunion Island (AF-016) between 16 December and 8 January. Activity will be on 40 to 6 metres using mostly CW with some SSB and RTTY. QSL via LoTW or by F5UOW, via the Bureau or direct. Please NO IRCs!

Canary Islands, EA8. Andrea, IK1PMR, and Claudia, PA3LEO, will once again be active as EA8/home call from Tenerife Island (AF-004) between 9 December and 10 January 2016. Activity will be on 160 to 6 meters using CW, SSB and RTTY. QSL via HB9FKK (preferred) or their home call signs, by the Bureau, direct, or E-mail requests for Bureau cards. Also via LoTW and Clublog. For more details and updates, see [www.ik1pmr.com](http://www.ik1pmr.com)

Kerguelen Island, FT5X. Gildas, TU5KG, will once again be active as FT5XT/mm around the Kerguelen area. However, he is expected to be on the island sometime in early 2016 signing as FT5XT. Gildas is captain of a fishing vessel and is expected/usually sails around the Kerguelen area for about 3 months, but his activity is sporadic (sign FT5XT/mm). QSL via F4DXW.

### History this week

The week starting 9 November 2015

1312 - King Edward III of England is born  
1483 - Martin Luther was born  
1850 - Robert Louis Stevenson was born, author of Treasure Island and Dr Jekyll and Mr Hyde  
1871 - Henry Stanley finds David Livingstone "Dr Livingstone, I presume"  
1872 - The Great Boston Fire  
1885 - General George Patton was born  
1887 - The Bloody Tuesday conflict on Trafalgar Square  
1891 - Field Marshall Erwin Rommel was born  
1925 - Actor Richard Burton was born  
1929 - Grace Kelly was born; she later became Princess Grace of Monaco  
1938 - Kristalnacht

1989 - The Berlin Wall is opened  
 2941 (SR) - With the help of the Elves, Bard arranges shelter and food for the townsfolk. (9 Nov)  
 2941 (SR) - Elves and Lake-men depart Dale and pass the north end of the Long Lake to seek treasure and recompense. (12 Nov)

#### November

1 – All Saints Day; Cape Town International Kite Festival  
 2 – Start of World Radio Communication Conference 2015 in Geneva, Switzerland  
 7 – RaDAR Challenge; Winterton Street Festival  
 8 -Remembrance Sunday; PEARS HF Contest; the Big Walk, Cape Town  
 7 and 8 –International Police Association Contest  
 11 - Armistice Day; Diwali  
 10 to 21 – The GWK Cherry Festival in Ficksburg  
 28 and 29 –CQ WW DX CW Contest  
 29 –The 33<sup>rd</sup> Toy Run

#### December

1 – Start of Youth on the Air (YOTA) month  
 3 – Day for Disabled Persons  
 6 – SARL Digital Contest  
 9 – All schools close  
 12 and 13 – ARRL 10 metre contest  
 16 – Day of Reconciliation  
 22 - Summer Solstice; Feast of Tevet

24 – Christmas Eve  
 25 - Christmas Day  
 26 – Family Day  
 31 - Old Years Eve; end of 2015 CQ Marathon; end of Youth on the Air (YOTA) Month

#### Contest Rules

The 2016 SARL Blue Book will soon be available for download.

PLEASE destroy the 2015 Blue Book by 31 December 2015; those rules will not work in 2016! During the course of 2015, I was challenged about an e-mail address that was wrong in the Blue Book - I then sent the person a copy of the relevant page in the 2015 Blue Book - to date no reply or apology!

#### Take note

Always read the rules for the contest in which you are going to participate, even if you have entered this contest a few times before.

Rules can change, as can the exchange format or abbreviations used.

There may be new categories you would like to enter. Just reading the rules may jog loose something that you wanted to remember from last year's participa-



Barrie ZS6AJY looks on at the Gold Plated Key he donated to the Museum. Barrie won the key in a World Wide competition that was held by Morsum Magnifikat, a professional Telegraphy magazine.

# INNES HOUSE AND THE RADIO CONNECTION

## by Richard ZS6TF

Innes House in Observatory, Johannesburg was completed in 1910 under the auspices of world renowned architect Herbert Baker, who was also responsible for the Union Buildings in Pretoria. It is the former home of Dr Robert Innes, the first Union Astronomer, and Observatory Director.



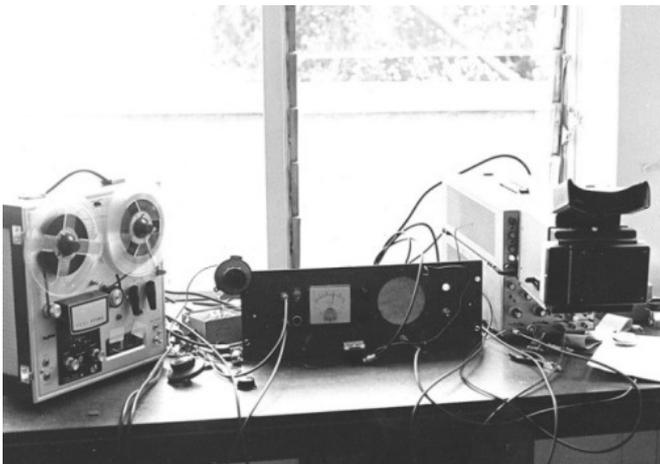
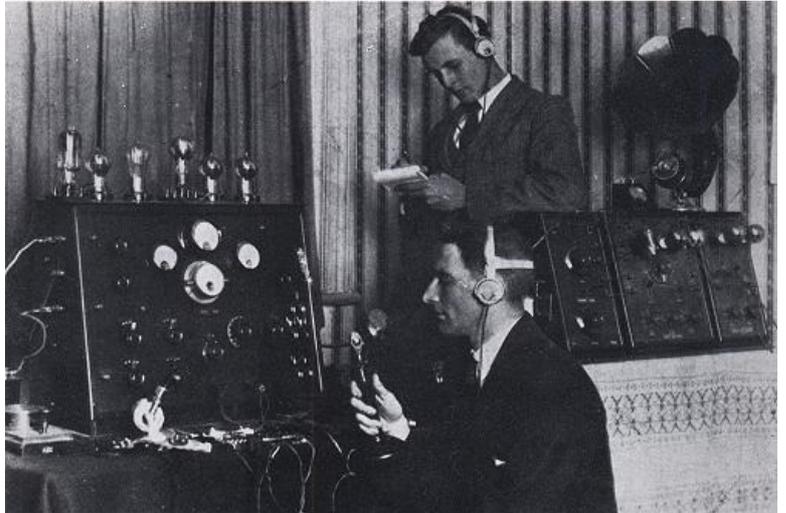
Robert's son Sydney Albert played a major role in the establishment of broadcasting, and amateur radio in the early 1920's.

In 1913, whilst a student at the School of Mines, Innes used a 10 inch spark coil and a coherer to achieve 2 way contact between his father's house in Observatory and a Mr Wallace Clements in Bellevue East. To Robert's surprise, the spark signals caused the lightning recorder at the Observatory nearby to register severe storms when none were evident.

In 1919 after the first World War restrictions were lifted, he began experimental music transmissions from a house nearby in Observatory. A relative played the piano into the carbon microphone of a newly constructed valve transmitter. His call-sign 2OB gave rise to his nickname "Toby" Innes. He later held call-signs ZS6D & ZS1D.

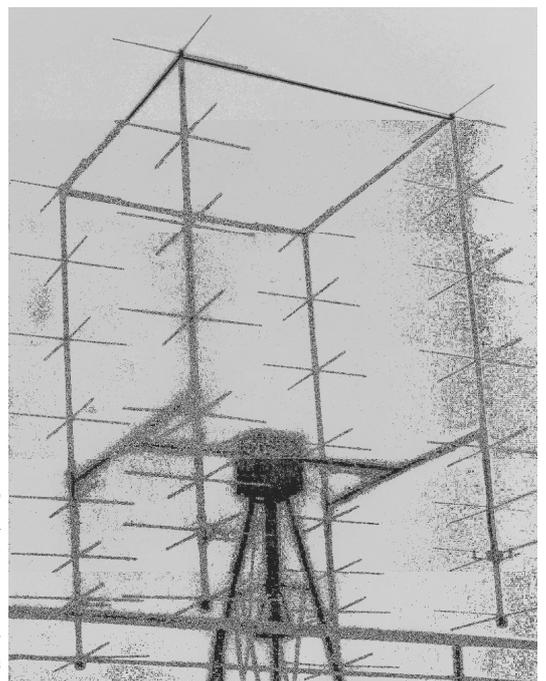
After upgrading the transmitter to a 6-valve unit constructed by a Mr Alf Goodman and a 45 ft high sausage aerial, he broadcast concerts and gramophone records nightly between 1922 and 1924, and his listenership grew to around 3000 whereafter the SABC was formed and amateurs were prohibited from broadcasting.

Gregory (Greg) Roberts was the last astronomer employed by the then Republic Observatory, engaged to carry out a 5 year Planetary Observing Program for the Lowell Observatory under contract to NASA, and the last to live at Innes house with his family in the period 1970 to 1973. In this period he built the first 136-138 Mhz receiver and steerable antenna system in South Africa to track weather satellites and receive their images.



He observed two Apollo missions, 11 & 12 following the spacecraft out to about 200000 miles on their way to the moon, using the observatory's 20-inch reflector telescope (since moved to Sutherland) and the 26.5 inch Innes refractor telescope.

He founded SA-AMSAT, an affiliate to the Radio Amateur Satellite Corporation AMSAT of the USA, and brought South Africa in as a participant in the



OSCAR (Orbital satellite carrying amateur radio) series of satellites. He still holds the radio amateur call sign ZS1BI and a current experimental licence. Greg is still sleuthing satellites, publishing orbital data on numerous satellites not available elsewhere in the public domain and writing regularly about the process.



Innes House has now been refurbished by the SAIEE as a museum for the Institute's Historical Section to display some of the artefacts in the Institute's possession and to honour the contribution of some of its more prominent members. It was opened officially on 6<sup>th</sup> November 2015 by SAIEE President Mr Andre Hoffmann, and arrangements can be now be made for interest groups such as SARL branch clubs to visit by contacting the author.

The museum's amateur radio station with special call-sign ZS6IEE and the radios displayed preserves a link to the radio heritage at this historical location, a joint project between the SAIEE and the Antique Wireless Association of Southern Africa, and will be operated on the AWA SSB net once a month and annually on Museums on the air.



ZS6RAD operating ZS0AWA from the SAIEE station.

Our museum shack has been completed!

On behalf of the AWASA, I would like to extend a BIG THANK YOU to all involved. Our historian, Richard ZS6TF, wedged his foot firmly in the door when the opportunity arose, and managed to secure us a chance to showcase just how we could contribute to a museum dedicated to electrical engineering, which of course goes hand-in-hand with the history of communication.

In May 2014 our test-run display for the SAIEE historical section committee was a great success, and we received the green light.

I cannot begin to explain how lucky we are to have been granted this opportunity, and how fortunate we should consider ourselves, being able to showcase our passion in such a significant and suitable location. I doubt whether there could be a more fitting place to share ham radio history in SA, as this site has deep roots when it comes to wireless communications in our country. One of its very first

residents, Sydney Albert "Toby" Innes (2OB, ZS6D, ZS1D) played a major role in the establishment of broadcasting, and amateur radio in the early 1920's (I will not delve into too many details here, but please feel free to look it up on our website, and also to visit our museum shack!)

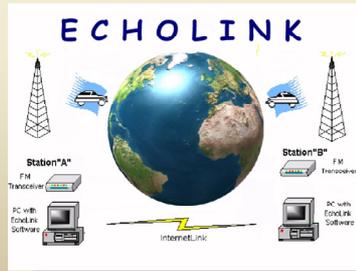
Thank you to Richard who not only spent innumerable hours at the museum but also for donating display items, coax, etc., consciously building a legacy which will not only create a place for like-minded amateurs to gather and feel right at home, but also to serve as a platform for sharing their passion with non-hams and growing interest in the hobby.

To Henry ZS6MC and Kevin ZS6KAT for their time and efforts, putting up a tower and cleaning/refurbishing display items. OM Sakkie ZS6BPA, Oliver, and Tim ZS6OB for their assistance and donations, and to all others involved – we GREATLY appreciate it! In closing, we'd also like to extend our sincere appreciation to the SAIEE for this opportunity, what an honor, thank you!

## What is Echolink?



- Echolink is a VOIP application that uses the Internet to pass digitised packets of sound from one node to many others
- It can be used to digitally link computers, transceivers or smart mobile devices.
- At first glance, Echolink is a similar program to Skype
- It can be used on either your home computer or your smart phone
- It can be downloaded absolutely free
- There is no subscription fee



## Echolink Presentation

by Kevin ZS6KAT

At the AGM, Kevin gave a presentation on the Echolink setup where anyone with an internet connection can listen in on the Saturday morning National Net.

The basics are simple and Kevin laid it out very well and showed there had been many international stations who listen in on the net.

Some of the slides that Kevin used to do the presentation have been used here on the left, but if you would like to see the whole presentation, it is available on the website [www.awasa.org.za](http://www.awasa.org.za) so please go along and have a look.

The thing is, that we have locked in on modern technology to assist us in maintaining a link to the old.

To get connected to echolink, simply follow the instructions given in the second slide and you are away.

I know there are sometimes setup problems with echolink, but nothing that cannot be sorted out using the online help or if you aren't that computer inclined, you can always ask someone. There is always a wealth of information available on webs and blogsites.

Do try downloading the software and once you're up and running, look for the ZS0AWA-L link and tune in to listen to the net.

You will find its as good as ghe real thing.

Remember, the National net is on Saturday morning 08:30 SAST or 06:30 UTC.

## How do I get Connected?



- Go to: <http://echolink.org/>
- Download the free software
- Follow the online user instructions
- Follow the registration procedure



Kevin ZS6KAT giving the Echolink presentation.



The Radio Shack inside Innes House with the proud call sign of ZS6IEE.

Richard ZS6TF operating from the home station.



Some of the fine examples of antique wireless that are on display, Racal RA17, Collins J54 and a Hallicrafters SX28 all nicely rack mounted.

After a hard day at the office, time to relax and have a braai and enjoy the flea market.



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**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. Join by logging in to our website: [www.awasa.org.za](http://www.awasa.org.za)

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

Saturday 05:00—AM Net—3615  
Saturday 07:15—Western Cape SSB Net— 7140 (Alternate 3630)  
Saturday 07:30—KZN SSB Net—7150  
Saturday 08:30— National SSB Net— 7140; relayed on 14135 beaming to WC and on Echolink (ZS0AWA-L)  
Saturday 14:00— CW Net—7020  
Wednesday 19:00— AM Net—3615, band conditions permitting.

The results of the AWA Valve QSO party held in October are as follows:

AM Session - Highest Score Richard ZS6TF  
Second Place - Barry ZS2NF

SSB Session— Highest score—Henry ZS6MC  
Second place—Johan ZS4DZ  
Third Place—Barry ZS2NF

Certificates will be sent by email to the highest scores.