



SHACKNEWS

HIGHVELD AMATEUR RADIO CLUB

DECEMBER 2009

COMMUNICATION IS THE NAME OF THE GAME

THE HARC COMMITTEE WOULD LIKE TO WISH ALL OF ITS MEMBERS AND READERS A MERRY CHRISTMAS AND A HAPPY NEW YEAR FOR 2010



Meeting The end-of year Xmas do was held at the Promise Grill in Alberton. There were 19 members and wives present. It took the form of a carvery with plenty to eat.

SSC Meeting Combined with the Highveld club for December.

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Regarding Licence renewals for 2010

The invoices were printed very late, and were only mailed on the 15th December 2009

So chances are you will not receive your renewal notice before next year.

According to ICASA the easiest way to renew your license is to pay it electronically or at the bank. (I still prefer the Post Office Ed.)

You can make a deposit at Nedbank, into ICASA's Deposit account.

Account Number: 1462002927

Branch Code: 14624500

The current Licence fee going into 2010 is still R27-00

From the SARL Forum

How to check for band openings

by Frank ZS6TMV / PA3GMP

Picture this: you switch on your HF rig, you turn your tuning knob across the various frequencies, hearing nothing but noise. You mutter "The bands are dead..." so you switch off and go back to watching TV. Does this scenario sounds familiar? In that case, read on!

One of the oldest axioms in radio communications is that in order to hear a station, there must be one that is transmitting in the first place - on the same frequency and at the same time as you are listening. The fact that you happen to hear no such station does not necessarily mean that there is no band opening! When you tune across the bands you listen only briefly on any given frequency, so the chance of stumbling upon that great opening is rather slim.

Enter the International Beacon Project (IBP) network - a valuable but underappreciated amateur radio service. The IBP network is a series of automated beacons transmitting on fixed frequencies, at fixed times, from fixed locations. IBP beacons operate on a three minute cycle. The first beacon on the list transmits for 10 seconds, broadcasting its callsign at 14 words per minute with a power of 100W (into an omnidirectional antenna of course) followed by 4 dashes of one second each. The first dash is 100W, the second dash is 10W, the third one is 1W and the fourth and last one 0,1W. Ten seconds after the first beacon started to transmit, the second one goes on air, again with its callsign and the four dashes at different power levels. Twenty seconds after the first beacon the third one comes on, then the fourth, and so on. After three minutes all beacons have had their turn and the cycle repeats.

So all one has to do in order to check for an opening on a given band is to tune to the IBP frequency for that band, and listen for a few minutes (more than one 3 minute cycle is recommended). For example, on 20M the IBP frequency is 14.100MHz. The IBP beacon in Pretoria (ZS6DN) can usually be heard in our neck of the woods (depending on short distance conditions) but 5Z4B (Kenya) is also a regular. Which means that if 5Z4B can be heard on 14.100, there is an opening to Kenya on 20m, and calling CQ is in order. If, on the other hand, VK6RBP (Perth) can be heard, try calling CQ for Australia - chances are that you will end up having a great QSO. So just tune your radio to the IBP frequency for the band(s) where openings are possible during that time of the day (the propagation forecast relayed on Sunday mornings will be helpful here!) and listen. You may be surprised! The IBP frequencies are 14.100MHz, 18.110MHz, 21.150MHz, 24.930MHz and 28.200MHz. There are no IBP beacons for 40 meters and below, but there are plenty of other beacons operating on these bands. Listening frequently and for longer periods may also teach you a great deal about how the bands behave over time. If you get tired of the noise, a good CW filter is recommended.

Remember: NEVER TRANSMIT ON BEACON FREQUENCIES! (Meaning: if you want to tune your antenna, do it a few kHz further on!)

The list of IBP beacons is too large to include here. It is maintained by IBP co-ordinator Martin Harrison G3USF, and can be found on the Internet at <http://www.keele.ac.uk/depts/por/28.htm> (with mirror copies of the original list at many other URL's). This list includes both IBP and "fixed" beacons (the latter transmitting on their own schedules and frequencies). The IBP beacons are the ones in the list marked with "IBP cycle".

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Origin of Quartz Crystal

A crystal is a beautiful, perfect form. It contains within it harmony, balance, clarity and perfection. A quartz crystal takes over 10,000 years to form. They come from deep within the Earth's core, and were formed when the Earth was evolving. Natural quartz crystals, often referred to by ancient traditions as the "veils of the earth," frozen water or frozen light, combine the elements silicon and water through a lengthy process involving heat and pressure. They are buried in the Earth, or sometimes in streambeds where they have washed down from higher ground after being dislodged. They are often found near gold. Varieties of quartz crystal, sometimes called rock crystal, are found all over the world. The largest numbers of crystals are mined in Arkansas and Brazil.

Ninety per cent of the Earth's crust is made up of the mineral group known as silicates, a combination of silicon and oxygen, plus other elements. The simplest silicate is silicon and oxygen-quartz crystal. Chemically, it is the oxide of the element silicon, and its chemical formula is SiO₂. It has a hardness of 7 on the Mohs scale. The crystal structure of is hexagonal with void spaces in geometric trails throughout the crystal. (*discussion point during a Porky session*)

The name crystal comes from the Greek word *crystallos* -meaning "clear ice," for the ancient Greeks thought that these transparent rock crystals were in fact frozen water turned into stone. Another legend has it that Holy Water was poured out of the Heavens by God and frozen to ice in outer space on its voyage to Earth. Angels petrified the "Holy Ice" to preserve it as a protective blessing for humanity.

Quartz is the most common mineral found on the Earth. In the world of gemstones, quartz supplies more different varieties than any other mineral. Gem quartzes can be divided into three main groups:

- crystallized quartz
- compact quartz
- cryptocrystalline quartz

Most crystals are formed by the repetitive addition of new matter to a growing crystalline mass. Some crystals have their origin in the magma or fiery gases of the Earth's interior or in the volcanic lava streams which reach the Earth's surface. These minerals, which include quartz, are called igneous. They are formed by the solidification of this molten mineral as it cools and hardens. As the molten rock mass cools, the atoms group together to form the essential regularity that determines the shape and composition of the crystal.

Some crystals grow from vapors in vents in volcanic regions. This type of crystal includes sulfur, and is condensed from hot mineralized gases into a solid state as the vapors are escaping from the inner Earth.

Some crystals form from water solutions or grow with the help of organisms on or near the Earth's surface. These crystals are known as sedimentary minerals, and are formed through the process of mechanical or chemical weathering. Air, water, wind and ice are the main erosion factors involved in dissolving the Earth's materials that will eventually be cemented together and occasionally crystallize.

Also, new minerals are formed by the recrystallization of existing minerals under great pressure and high temperatures in the lower regions of the Earth's crust. These metamorphic minerals undergo structural and chemical changes after the original formation, reorganizing the atoms and creating different textures, compositions and crystals.

---oooOOOooo---

A lady goes to the bar on a cruise ship and orders a Scotch with two drops of water. As the bartender gives her the drink she says, 'I'm on this cruise to celebrate my 80th birthday and it's today...'

The bartender says, 'Well, since it's your birthday, I'll buy you a drink. In fact, this one is on me.'

As the woman finishes her drink, the woman to her right says, 'I would like to buy you a drink, too.'

The old woman says, 'Thank you. Bartender, I want a Scotch with two drops of water.'

'Coming up,' says the bartender. As she finishes that drink, the man to her left says, 'I would like to buy you one, too.'

The old woman says, 'Thank you. Bartender, I want another Scotch with two drops of water.'

'Coming right up,' the bartender says.

As he gives her the drink, he says, 'Ma'am, I'm dying of curiosity. Why the Scotch with only two drops of water?'

The old woman replies, 'Sonny, when you're my age, you've learned how to hold your liquor. Holding your water, however, is a whole other issue.'

1. The roundest knight at King Arthur's round table was Sir Cumference. He acquired his size from too much pi.
2. I thought I saw an eye doctor on an Alaskan island, but it turned out to be an optical Aleutian.
3. She was only a whisky maker, but he loved her still.
4. A rubber band pistol was confiscated from algebra class because it was a weapon of math disruption.
5. The butcher backed into the meat grinder and got a little behind in his work.
6. No matter how much you push the envelope, it'll still be stationery.
7. A dog gave birth to puppies near the road and was cited for littering.
8. A grenade thrown into a kitchen in France would result in Linoleum Blownapart.

Kids Are Quick

TEACHER: John, why are you doing your math multiplication on the floor?

JOHN: You told me to do it without using tables.

TEACHER: Glenn, how do you spell 'crocodile?'

GLENN: K-R-O-K-O-D-I-A-L'

TEACHER: No, that's wrong

GLENN: Maybe it is wrong, but you asked me how I spell it.

TEACHER: Donald, what is the chemical formula for water?

DONALD: H I J K L M N O.

TEACHER: What are you talking about?

DONALD: Yesterday you said it's H to O.

TEACHER: Now, Simon, tell me frankly, do you say prayers before eating?

SIMON: No sir, I don't have to, my Mom is a good cook.

TEACHER: Clyde, your composition on 'My Dog' is exactly the same as your brother's. Did you copy his?

CLYDE: No, sir. It's the same dog.

TEACHER: Harold, what do you call a person who keeps on talking when people are no longer interested?

HAROLD: A teacher

CLUB INFORMATION

Postal address PO Box 19937 Sunward Park 1470

Monthly meeting venue

Website <http://www.qsl.net/zs6hvb/>

e-mail zs6hvb@gmail.com

Repeater 145.1875 MHz input - 145.7875 MHz output

Linked to 70 cm - 438.850 Mhz (Sunday bulletins)

Witwatersrand Rifles HQ
Cnr Barlow and Cavaleros Str
Industries West
Germiston

Bulletins Sunday morning - 145.7875 MHz & 7062 KHz @ 08h45. *First Saturday of the month at 14:30*
Relay - 80M - 3662KHz

Committee

Chairman	Frank van Wensveen	ZS6TMV	082-294-2648
Vice Chairman	Frank Mercier	ZS6MER	011-845-1146
Secretary/Treasurer	Berridge Emmett	ZS6BFL	011-893-1291
Assistant Secretary	Marianne Treyvellan	ZR6JMT	084-403-3355
Repeater/Packet/Technical	Ton van Dijk	ZS6ANA	011-432-5494
Shacknews Editor	Berridge Emmett	ZS6BFL	011-893-1291
Shacknews Printing	Harry Lautenbach	ZS6LT	011-888-5362
Webmaster	Yvonne van Dijk	ZR6TBL	011-432-5494
Assistant Webmaster	Marianne Treyvellan	ZR6JMT	084-403-3355
Public Information Officer			

Club bank details

First National Bank - Current Account 62116557309

Branch Code 201209 - Sunward Park

2010

HVB Meeting



SSC Meeting



Proposed end-of-year social



January						
Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

February						
Su	M	Tu	W	Th	F	Sa
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28						

March						
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28	29	30	31			

April						
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May						
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30	31					

June						
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July						
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25	26	27	28	29	30	31

August						
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29	30	31				

September						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
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26	27	28	29	30		

October						
Su	M	Tu	W	Th	F	Sa
					1	2
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November						
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

December						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
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26	27	28	29	30	31	