



SHACKNEWS

HIGHVELD AMATEUR RADIO CLUB

JULY 2009

COMMUNICATION IS THE NAME OF THE GAME

Meeting At the meeting a representative from Probe Batteries gave a talk and demonstrated their new type of car battery. Most interesting to see where car batteries are going these days. The agenda for the next meeting has not been finalised as yet so keep listening to the bulletins or check the club web site.

SSC Meeting No meeting this month. The next meeting will be held at the home of Rex and Ingrid on 2008-08-08. Please remember to bring additional eats.

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For those interested in locally manufactured lattice towers go to <http://www.repeater.co.za/index1.html>

For a homebrew spiral beam antenna look at:- <http://wbilljohnson.com/zmvantenna/zmvantenna.htm>

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1- A mother takes her son to a psychiatrist and says, "Doctor, I'd like you to evaluate my 13 year-old son."

"He's suffering from a transient psychosis with an intermittent rage disorder, punctuated by episodic radical mood swings, but his prognosis is good for full recovery."

"How can you say all that without even meeting him?"

"Didn't you say he was 13?"

2- A dietitian was once addressing a large audience. "The material we put into our stomachs is enough to have killed most of us sitting here, years ago. Red meat is awful. Soft drinks erode your stomach lining. Chinese food is loaded with MSG. Vegetables can be disastrous, and none of us realizes the long-term harm caused by the germs in our drinking water."

"But there is one thing that is the most dangerous of all and we all have, or will, eat it. Can anyone here tell me what food it is that causes the most grief and suffering for years after eating it?"

A 75-year-old man in the front row stood up and said,

"Wedding cake."

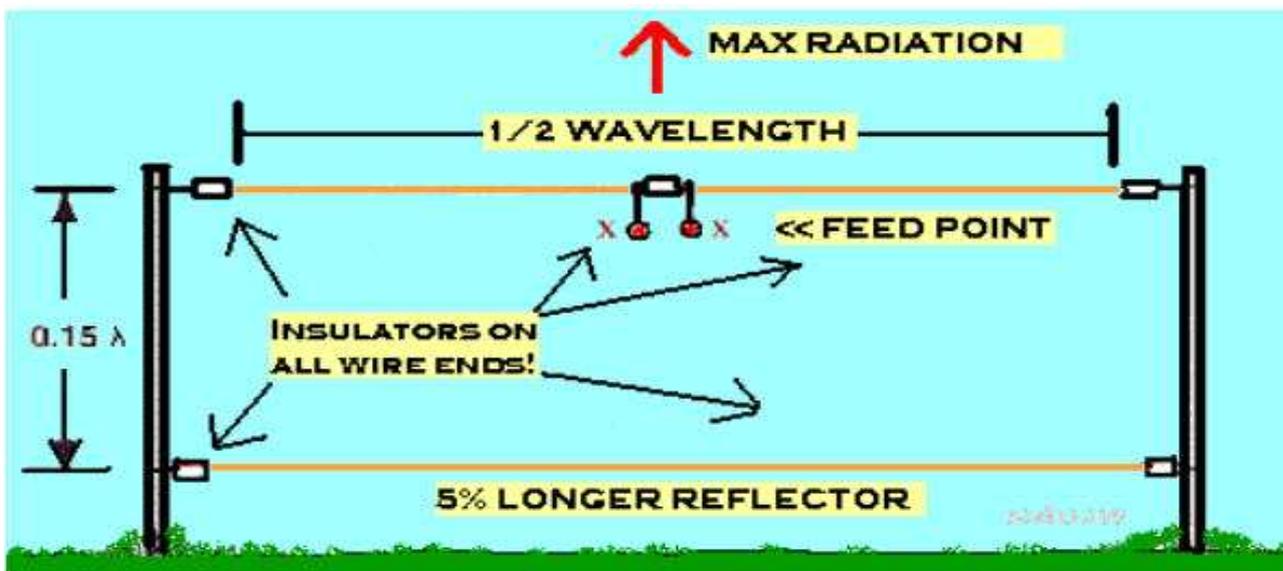
3- A very devout man who was very over weight decided to go on a diet. One of his main problems with eating was that he would stop for donuts every morning on the way to work. So to make things easier for himself, he changed his route to work to avoid the temptation of stopping. As the weeks went by he started losing a lot of weight and was receiving compliments from his friends and co-workers.

Then one morning without thinking, he accidentally turned onto the road which would take him by the donut shop. At first he was going to turn around but then he thought to himself, "maybe the Lord is rewarding me for my efforts". So, he said a short prayer telling the Lord that if this was His true intention let there be an open parking place directly in front of the shop.

And sure enough, on the fifth time around the block there was an open spot right up front

THE CLOUD WARMER NVIS BEAM

AIM FOR THE CLOUDS AND GET BETTER "LOCAL" SIGNALS! AN NVIS STYLE "BEAM" ANTENNA FOR BETTER "LOCAL" AREA COVERAGE ON HF



Some of you may recognize this design as nothing more than a half wave dipole, but upon closer examination, you will see that there is a reflector at the bottom of the antenna spaced at about 0.15 wavelength or less from the driven, (dipole), element.

This in fact, makes this antenna a 2 element wire "beam" aimed straight up at the clouds!

Hence the name "Cloud Warmer Beam".

NVIS style antennas work best below about 8mhz.

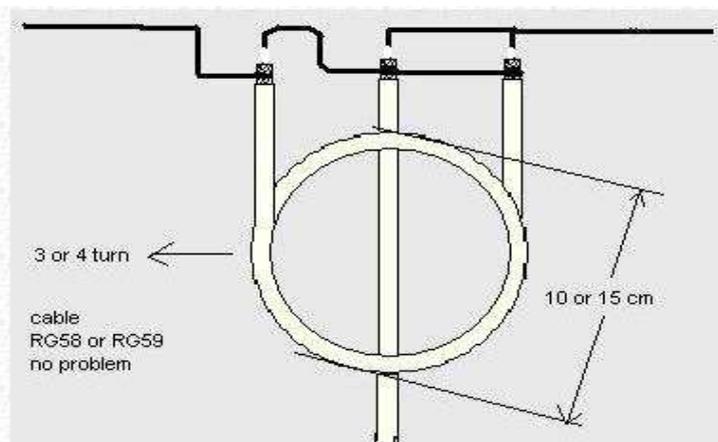
If you already have a half wave dipole up and running, then you have been using this type of antenna to some extent without knowing it, however, yours is not as effective in getting your signal to the "local" area out to a few hundred miles due to the properties of the ground underneath, your present dipole, and the nature of the dipole pattern.

This design gives you the ability to more closely match the ideal situation for your dipole to perform much better in the close in range, (a few hundred miles radius), from your station and give you a little added "gain"!!!!

THERE IS NOTHING SPECIAL ABOUT THIS ANTENNA CONSTRUCTION OTHER THAN THE ADDED REFLECTOR AT THE BASE OF THE DIRECTOR (DIPOLE)!

By adding the reflector, which is 5% longer than the driven element, and spacing it 0.15 wavelength or less below it, you turn your dipole into a beam type antenna projecting your signal up to that big reflector in the sky where it is bounced back down into a sort of upside down cone pattern extending out several hundred miles! THIS IS NOT A DX ANTENNA!

A balun for use on a Windom antenna



Capacitances per unit length, which may be used to replace an actual capacitor ([see the figure](#)).

The LED will blink at a rate inversely related to the length of the cable, or at a frequency = $1.443/[(R_A + 2R_B)C]$. For a 45-meter RG-58/U cable, the LED will flash at $f_1 = 1.67$ Hz. When an open circuit is introduced at $L_2 = 25$ meters from the IC, the LED will blink at about $f_2 = 3$ Hz. By observing the increase in the LED's flash rate, the location (L_2) of the open-circuit can be determined using the formula $L_2/L_1 = f_1/f_2$, where $L_1 = 45$ meters.

For other lengths of cable, the value of R_A and R_B may need to be modified to find the values that make visual checking possible. Alternatively, the output of the 555 can be sent to a frequency counter for a more precise reading.

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The Starship
Entershack

Some shack
huh

Submitted by
ZS6TMV



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

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

| | | | |
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Club bank details

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