

NORTH SHORE ARC



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<http://www.ve3osh.com/>



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A long drink, for a big lot of hot activity!

From Peter VE3GYY

Hello thirsty antenna builders. Here's my adventure with a Beverage antenna.

The antenna I have been imagining building here after buying the farm, (not bought the farm), is a Beverage. I research the web and found some very good sites, (see below). I have started with a simple 880 foot long by about 5 feet high. The cows need to go underneath it! There are sweet spots for the length of the Beverage, and 880 is one. I put it up after there was about 6 inches of snow on the ground, but the ground had very little frost in it. I used what is known in farming circles as T-bar. Eight foot long rods of iron with a cross-section of a 2 inch T. They cost about \$10 buck each, but they do go on sale. I used about 9 of them. Somewhat over 100 feet between the poles. I didn't measure between the poles, just eye-balled it. I tied pink plastic ribbon on the wire every 5 feet or so. The wire I used was number 17 aluminum electric fence wire. (1/4 mile for about \$25). W8JI has excellent information for the transformer, (450 ohm to 50 ohm, 9:1 conversion, which means a 3:1 turns ratio). I used a BN202-73 binocular. Diz at www.kitsandparts.com has good prices on small quantities. He mails it off fast too! The transformer is very simple to construct. Three turns for the antenna side and one turn for the 50 ohm coax side. A turn is through one hole and back through the other hole. It's important to allow the wire to move freely in the plastic supports. If something, like a cow, or deer, bumps into the antenna, the antenna gives and rebounds, rather than breaking. The far end of the antenna, (the receive direction of the antenna), needs a 450 ohm termination. The resistor should be non-inductive/carbon composition. It could be metal-film, but they won't last. The ends of the antenna can use some lightning/spark gap device. This can be homebrewed to achieve a narrow gap for the spark to bridge. I bought a bunch of 2 watt, 220 ohm resistors from E-bay and paralleled and series-ed up of them to increase the wattage. There is differing ideas as to how to get the wire down from the 5 feet to ground level where the resistors go to ground. I went straight to ground. Some think it's important to gradually slope it to ground. I saw no justification for the short distance involved for either approach. I had to make a shallow ditch across the gravel driveway. I only just a couple of days ago made a shallow groove across the lawn to bury the coax and not wrap it around the lawn mower blades.

Results:

Weak un-intelligible European signals on 80 meters became clear. BTW, the other antenna I was comparing with was a 270 foot inverted V up about 55 feet, feed with TV twin lead, (300 ohm). This was a startling result. I couldn't believe how much better this antenna received. This wasn't just a slight improvement. It was dramatic. The benefit of this antenna is a much better Signal to Noise ratio, (S/N). The signals are actually weaker, but the relative strength of the signal over the noise is vastly improved.

Future Plans:

I'm going to replace the single electric fence wire with a pair of telephone wires. These are plastic coated #22 wire, with a nominal characteristic impedance of 100 ohms. Parallel 2 wire Beverage antennas have been designed, and built using independent wires or 450 ohm twin lead, but it turns out that the twisted telephone pair works just fine too. With the two wires I will be able to switch the directivity of the wires, according to a website below.

Note: Peter cajoled the cow into moving next to the antenna as an indication of scale.



I then plan to erect two more similar beverages. The current Beverage points north-east. The next one will be a little west of north, and the third will be roughly north-west. With these three Beverages, I will be able to switch between 6 directions at 60 degrees apart, covering 360 degrees. I'll let you know how that goes. The Beverage antenna was invented in the early 1920s by Dr. Harold H. Beverage

<http://www.w8ji.com/beverages.htm>

<http://www.qsl.net/n1eu/topband/BeverageTips.htm>

<http://www.eham.net/articles/503>

<http://w7iuv.com/>

A good article on preamps

http://www.yccc.org/Articles/ka1gj_bev.htm

<http://k9jy.com/blog/2007/11/05/reversible-beverage-array-by-oh2ben/>

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How to fill your Calendar.

From Larry VA3FHG

Upcoming Events		
May 15	Club Breakfast at Momma's Restaurant – Five Points Mall – 9:00 a.m.	Join us for coffee only if you wish
May 18	Club Meeting – Branch 43 The Royal Canadian Legion – 7:00 p.m.	
May 19	Club 2 meter net – 147.120 + offset - 7:30 p.m.	Stay around for the trivia
May 22	Club Breakfast at Momma's Restaurant – Five Points Mall – 9:00 a.m.	We still meet even though it is the long weekend
May 26	Club 2 meter net – 147.120 + offset - 7:30 p.m.	Stay around for the trivia
May 29	Club Breakfast at Momma's Restaurant – Five Points Mall – 9:00 a.m.	Join us for coffee only if you wish
June 2	Club 2 meter net – 147.120 + offset - 7:30 p.m.	Stay around for the trivia
June 5	Club Breakfast at Momma's Restaurant – Five Points Mall – 9:00 a.m.	Join us for coffee only if you wish
June 5	Central Ontario Hamfest – Cambridge, ON	New site this year http://www.hamfest.on.ca
June 9	Club 2 meter net – 147.120 + offset - 7:30 p.m.	Stay around for the trivia
June 12	Black Bear Auto Rally - Bancroft	The safety of spectators and drivers is enhanced by HAM's. http://www.mlrc.ca/blackbear/
June 12	Club Breakfast at Momma's Restaurant – Five Points Mall – 9:00 a.m.	Join us for coffee only if you wish
June 15	Club Meeting – Branch 43 The Royal Canadian Legion – 7:00 p.m.	Last meeting before the summer break
June 16	Club 2 meter net – 147.120 + offset - 7:30 p.m.	Stay around for the trivia
June 19	Club Breakfast at Momma's Restaurant – Five Points Mall – 9:00 a.m.	Join us for coffee only if you wish
June 19	Durham Region ARES meeting. Ajax Fire Headquarters – 10:00 a.m.	Time to make the breakfast and then the meeting.
June 23	Club 2 meter net – 147.120 + offset - 7:30 p.m.	Stay around for the trivia
June 26	Club Breakfast at Momma's Restaurant – Five Points Mall – 9:00 a.m.	Join us for coffee only if you wish
June 26- 27	ARRL Field Day Purple Woods Conservation Area; sire of Club repeater	We will be 4A- Coordinators – Martha, Steve and Peter
June 30	Club 2 meter net – 147.120 + offset - 7:30 p.m.	Stay around for the trivia

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 As the weather gets nicer, remember to turn on the rig. There have been some really good openings to Europe lately. I'm hoping this bodes well for Field Day.

Your humble scribe.

de Ken.

What's New at Durham Radio - May 03, 2010

If you would like to receive our "What's New" mailing (about once every other month) along with subscriber only deals, visit our [HOME PAGE](#) and add your email address. (bottom right)

Important Announcements & Reminders

Summer Hours are Here - We are now operating Monday to Friday from 9 - 5. We have noticed that there is often a lineup on Saturday mornings so we are now opening earlier Saturdays. The Saturday summer hours are 9 - 2.

See us at the Smiths Falls Amateur Radio Fleamarket - May 8, 2010 - Avoid disappointment. Call and order ahead, we will deliver your order to the hamfest for you. Fleamarket details [HERE](#).

Down East Flea Market - Due to scheduling conflicts, we were unable to attend this years Flea Market which takes place on May 15th. If you go to the show, make sure you get one of our flyers for show specials. Show details [HERE](#).

Central Ontario Hamfest - June 6th - As always, we urge you to call or email us and order ahead, we will deliver your order to the hamfest for you. We can't bring it all with us! Fleamarket details [HERE](#).

Lower Pricing on Tivoli Audio! - **Just in time for Mother's Day!** The prices have dropped on almost every Tivoli Audio product. Tivoli makes great sounding radios with good reception. Most are very simple to operate too! Check out Tivoli products [HERE](#).

Other items with New Lower Pricing

- [AIRNAVRADARBOX](#) Track local and overseas flights on your computer! Now \$599.95 was \$699.95
- We have lowered the price on many items in our [Sangean](#) line.
- All Uniden/Bearcat [Base/mobile](#) and [portable scanners](#).
- Most [Alpha Delta](#) antennas
- [Z11PROII](#) Autotuner Was \$209.95 Now \$199.95
- [SBB224 & SBB224NMO](#) Tri-band mobile antenna covers 2/220/440 MHz Was \$99.95 Now \$89.95
- [WR300](#) Midland Weather Alert Radio Was \$79.95 Now \$69.95
- [R1650](#) Reecom Weather Alert Radio Was \$89.95 Now \$79.95

\$100 US Garmin Rebate - Get a \$100 US mail-in rebate on any "Zumo" motorcycle GPS unit. These GPS units are "glove friendly" and are made to tolerate vibration, water and even fuel! A Zumo can be used in your car or other vehicle too. Zumo models [HERE](#).

New Products - New Products - New Products - New Products - New Products - New Products

Amateur Radio

Comet CSB Series Dual Band Mobile Lift & Lay



Lift and lay design allows you to lay the antenna down to pass through low clearance areas.

CSB750A - 42 Inches 3.6/6.1dbi

CSB770A - 50 Inches, 4.4/6.9dbi

CSB790A - 62 Inches, 5.1/7.7dbi

[More Info](#)

SBB25 2 Metre Mobile Antenna

48" center-load 5/8 wave. 4.1dBi gain. Foldover design.

[More info](#)



CF416B Duplexer 1.3-170MHz, 350-540MHz



Output: SO-239
Low Input: PL-259
High Input: N-Male

[More Info](#)

HD53824 Heavy Duty Lip Mount

Adjusts 360 degrees in 2 planes for mounting on horizontal/vertical edges. Thin lead-in fits through tiny spaces.

[More info](#)



JTCE1GRY2 Centre Insulator



Build your own wire antenna with one of these high performance centre insulators.

[More Info](#)

ADMS1900 Software/Cable FT-1900R

Advanced data management system USB Kit with version 4* software and new USB cable

[More info](#)



ARRLFIELD DAY Book



Tools & Resources for Field Day Fun

[More Info](#)

Software and Cable for FT817 or FT857/897

[ADMS4AUSB](#) works with FT-817

[ADMS4BUSB](#) for FT857/897D

[More info](#)



Understanding Basic Electronics



A step-by-step guide to electricity, electronics and simple circuits. P/N UNDERSTANDING.

[More Info](#)

Radio/Phone/GPS Mount

Fits in your cup holder and bends as required for your convenience.

[More info](#)



AM/FM and Specialty Radios

CRANE FM REFLECT



Crane's best indoor FM antenna. Works wonders with FM & HD radio.

[More Info](#)

LB100 "Lunch Box" HD AM/FM Radio

It's rain, dust and shock resistant, making it suitable for both indoor and outdoor settings. Ideal for mechanic shops and construction sites or anywhere a rugged radio is needed.

[More info](#)



C Crane AC Power Filter



Reduces static noise on your AC power line. Works with any type of radio or audio equipment that could be affected by power line noise.

[More Info](#)

MMC96i Remote iPod Dock with USB/SD/WMA/MPS Playback

A multi-function remote interactive iPod docking pad with USB/SD WMA/MP3 playback.

[More info](#)



CB Radio

75-785R Portable Handheld CB



Operates on 9 "AA" batteries or the included lighter plug. Also includes ducky antenna. Full 4W output. **This item is refurbished and selling at a special price. Limited stock.**

[More Info](#)

SA27 Performance Replacement Ducky

A nice replacement antenna that fits handheld CB's with a BNC connector. 9.5" long.

[More info](#)



GPS

Garmin Approach G3



This rugged, waterproof, touchscreen golf device packed with thousands of preloaded golf course maps. Measures individual shot distances and shows the exact yardage to fairways, hazards and greens. Doubles as a digital scorecard!

[More Info](#)

Garmin ZUMO 220

Designed by bikers for bikers. Bluetooth, City Nav. N.A. car mounting kit & DC cord Included.

[More info](#)



Garmin NUVI 1350



Economical but still loaded with the features you need. Wide screen. Preloaded North America maps, lane assist.

[More Info](#)

Complete Ontario Topo Coverage



Get the most up to date topographic maps available on the market. Compatible with Garmin GPS receivers. Available on CD or SD.

[More Info](#)

Garmin 010-11022-00 Carabiner



Carabiner clip for Oregon, Approach and other Garmin handheld GPS units.

[More Info](#)

Garmin NUVI 1390T



This fully loaded widescreen GPS includes N.A. Maps, 2D or 3D view, lifetime traffic, Bluetooth and more.

[More info](#)

Accessories for Approach

Fits Garmin Approach G3/G5, Colorado, Dakota & Oregon series GPS Units.

Order part [GAR0101085111](#) for the cigarette lighter cord separately.

[More info](#)



Garmin 010-11022-10 Belt Clip

Garmin belt clip for Approach, Colorado and Oregon handheld GPS units.

[More info](#)



HDTV

Mast Pipe Ground Clamp



This subcompact outdoor antenna can pull in HD signals better than most other subcompacts. Includes rotator and preamp. Great for RV's or attics too. P/N DGA-C1

[More Info](#)

[DurhamRadio.com](#)

Coming Soon -- High Isolation RF Switch

Looking for extremely high isolation for your new HD setup? This commercial-grade switch is exactly what you're looking for. Stock arriving mid-May. Product page currently unavailable.



Miscellaneous

Radar Box 3D Aircraft Tracking



Track aircraft anywhere in the world. 3D view of plane and elevation!

[More Info](#)

[UPGRADE YOUR RADARBOX TO 3D](#)

Wi-Fi Antenna Cable to Wi-Fi Card

Three foot cable with SMA-RP MALE on one end and N -Female on the other. P/N

[RF1011203](#)

[More info](#)



Lighter Plug with LED



Mode 12 Volt cigarette lighter plug with green LED & 3 Amp fuse. P/N 31-085-0

[More Info](#)

Male Crimp MCX Connector

Male MCX connector for LMR 195 cable. Fits GPS and internet sticks. P/N [CN80195](#)

[More info](#)



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