R F News

May 15, 2016

From The President

Many thanks to David (W5XU) who spoke at the April meeting about his experiences on the recent VP8 expedition to the South Georgia and South Sandwich Islands. David's entertaining presentation was well received by members and guests alike.

Note that this month's meeting will be held at the BREC Observatory on Highland Road at 6:00 pm (earlier than regular meetings) on May 31st. This is our annual pot luck dinner. See details elsewhere in this RF News.

The club is planning a "field trip" to the LIGO facility in Livingston Parish on the morning of June 18th. Details will be announced in the June RF News and the Sunday night nets. LIGO announced in September of 2015 the detection of gravitational waves from a black hole as Einstein had predicted. For more information, the LIGO website is: https://www.ligo.caltech.edu/detection

The BRARC 440 repeater is back on the air and performing well following installation of a new System Fusion Yaesu DR-1X repeater and antenna system repairs. Much appreciation is due the Repeater Committee including Gerard De Cote (W5TZX), Ken Shutt (W5KQ), Brook Samuels (N5DGK), Dave Thomas (K5CGX) and Buddy Brown (N5BUD).

Special thanks to Matt Anderson (KD5KNZ) and Keith Davis (KD5LVT) who donated their time, equipment and expertise to the repeater project and to Pat Doyle (KB5YSC) who donated coax and connectors as well as his time and expertise.

73,
Dick-N5KIP

Upcoming Events Calendar

5/31/2016 **Note Location Change**

6:00 PM- BRARC Club Meeting

Annual Potluck Supper
BREC Highland Road Observatory

Call Sign Suffix	Bring
A-I	Side Dish
J-R (or no call)	Desert or a Salad
S-Z	Bring a Main Dish

Baton Rouge Amateur Radio Club

PO Box 4004, Baton Rouge, LA 70821
Web: www.brarc.org [redacted]

President	Dick Burroughs, N5KIP
Vice President	Jon Reise, WA9JBR
Secretary	Todd Huovinen, KB5TMD
Treasurer	Ken Shutt, W5KQ
Directors	Vernon Morris, AA5O Brook Samuel, N5DGK Daniel Smith, N5KHM Steve Irving, WA5FKF Dave Thomas, K5CGX Brett Hebert, KG5IQU Robin Hudson, KK5RH
Repeaters:	146.790 - and 444.400 + (PL tone 107.2)
Nets:	BRARC Club Net - Sunday 8:30 PM 146.790 (PL tone 107. Ten Meter Net - Monday 7:30 PM 28.450MHz USB

Survival in the Antarctic – The 2016 VP8 Expedition

By VP8 Expedition Team Member and BRARC Member David Assaf, W5XU

Lone Star DX Assoc Dinner June 10, 2016 6:30 PM

DFW Airport Sheraton Hotel Irving, TX (Ham-Com

For twenty days during the month of January 2016 our friend and fellow amateur radio operator David Assef (W5XU) spent his days and nights on the islands of South Georgia and South Sandwich which are both located in the Antarctic Region south of Argentina, We are proud of David and for this terrific opportunity that was given to him. Please join us at our April monthly club meeting as David will be presenting a program on this exciting DX'Pedition to the Antarctic complete with stories and pictures to show everyone.

More information on this DX'Pedition can be found at:

http://www.intrepid-dx.com/vp8/

David will also be giving a presentation on this DX'Pedition at the DX Dinner at Ham-Com in Irving, Texas on Friday June 10th 2016: More information on this can be found at:

http://www.dxer.org

Do You Have Topics or Suggestions for the RF News?

Do you have pictures, articles, links or other ham radio related items for inclusion in the RF News?

Contact the club secretary, Todd (KB5TMD).

BRARC Elmers

Dick Burroughs, N5KIP [redacted]
Buddy Brown, N5BUD [redacted]
Keith Davis, KE5LVT [redacted]

If you need assistance, please contact one of above.
If you would like to be an Elmer, please contact the club secretary Todd, KB5TMD.

BRARC Facebook Page

If you haven't done so, please visit and “like" our BRARC Facebook page. You will find a link at the club’s website: http://brarc.org/

We're using Facebook to keep the membership better informed in a timely manner about what's going on in your radio club. This page is also a good way for BRARC members to keep in contact with each other.

73,
Robin, KK5RH

VE Questions

May
Tech
T5D12 (D)
What is the voltage across a 10-ohm resistor if a current of 2 amperes flows through it?
A. 8 volts
B. 0.2 volts
C. 12 volts
D. 20 volts

General
G4B04 (D)
What signal source is connected to the vertical input of an oscilloscope when checking the RF envelope pattern of a transmitted signal?
A. The local oscillator of the transmitter
B. An external RF oscillator
C. The transmitter balanced mixer output
D. The attenuated RF output of the transmitter

Extra
E3A04 (D)
What type of receiving system is desirable for EME communications?
A. Equipment with very wide bandwidth
B. Equipment with very low dynamic range
C. Equipment with very low gain
D. Equipment with very low noise figures

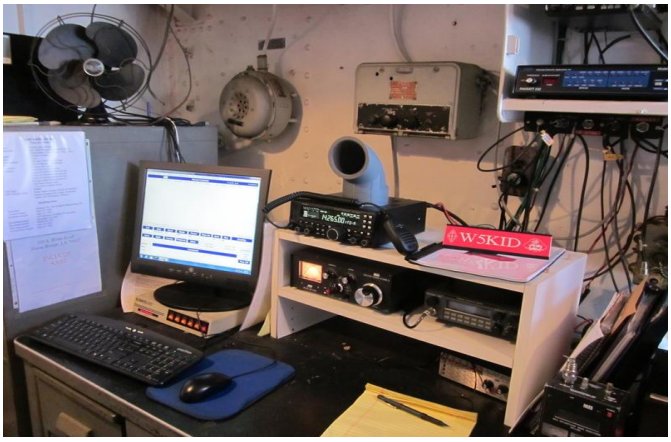
USS KIDD, W5KID
Armed Forces Day
Saturday, 21 May 2016

Operators Needed:

Operators of any class license and loggers are needed for this Special Event. Technicians are encouraged to participate and gain first-hand experience operating the phone bands with a skilled operator as your mentor. General and Extra Class operators can experience the excitement of working pile ups, which often occur when W5KID is on the air. Reserve your one-hour operating/logging time slot now.

Station Equipment:

The Baton Rouge Amateur Radio Club maintains a permanent amateur radio station on board the USS KIDD, DD-661. The station is in the aft radar jamming compartment on the 01 deck. We run a Yaesu FT-450D, 100 W transceiver with an antenna tuner, to a random wire, 150 ft. long in the ship's rigging. Much of this antenna is the ship's original HF wire antenna.



Operating Times & Frequencies:

10:00 am – 4:00 pm CT
SSB 14.240, 7.240 MHz
CW 14.060, 7.060 MHz

For great pictures and history of the USS KIDD check out the websites below.

www.usskidd.com and **www.w5kid.org**

To reserve your time slot:

[redacted] **contact:**

- **Jon Reise, WA9JBR 225.388.5776**
- **Buddy Brown, N5BUD 225.573.2111**

USS KIDD, W5KID
Museum Ships Weekend
Saturday & Sunday, June 4–5, 2016

Operators Needed:

The USS KIDD will be participating along with 86 other museum ships in this event. Hams will be trying to contact as many ships as possible and can receive an award certificate for confirming 15 ships worked. Visit www.nj2bb.org and click on the Museum Ships link for rules and list of participating ships.

Operators of any class license and loggers are needed for this Special Event. Technicians are encouraged to participate and gain first-hand experience operating the phone bands with a skilled operator as your mentor. General and Extra Class operators can experience the excitement of working pile ups, which often occur when W5KID is on the air. Reserve your one-hour operating/logging time slot now.

Baton Rouge Amateur Radio Club 's Jon Reise, WA9JBR, presents a special recognition certificate to Gus Gikas, W5HRF, for 78 years as a license amateur radio operator. First licensed in 1938, Gus retired from the military and relocated from San Antonio to Baton Rouge after 2000. Gus is an active member of the club and is a regular check in on the 2 meter Sunday evening net." From Mike Nolan KD5

Amateur Radio License Classes

Editor's Note: Please see Buddy (N5BUD) if you are interested in teaching a class.

Ham Radio, also known as Amateur Radio, is a popular hobby and a service which licensed participants operate communications equipment, with a deep appreciation of the radio art. Now you can join this hobby of 700,000 U.S. Ham Radio operators in a 12-week course (1-night per week) conducted by the Baton Rouge Amateur Radio Club (BRARC). Morse code is no longer a requirement for the FCC license, but still very popular. Several other modern communications modes including voice, data, and television are used today. Satellites, the internet, and radios are all part of the hobby now. Join the fabulous, fun hobby of Amateur Radio by registering for a class today.

Technician Class License

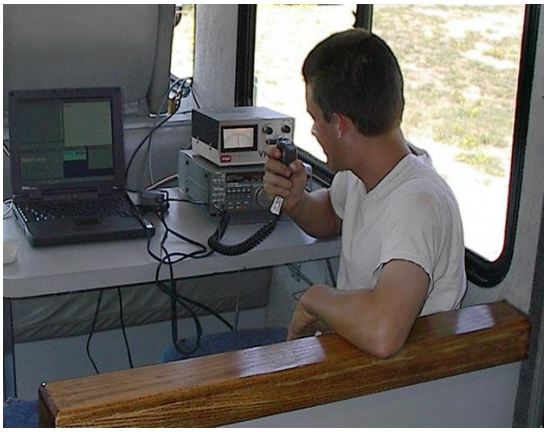
Level I Course:

This is the entry-level course designed for anyone with an interest in communicating, learning operating procedures, and new technology. No pre-requisites are required. The course covers operating and communicating with hams, licensing regulations, radio safety, and the very basic fundamentals of radio and electronics. The course concludes with the 35-question multiple-choice FCC exam. Experienced Amateur Radio Class instructors conduct the classes and the testing.

April 14, 2016
Thursday evenings, through June 30.

Thursdays, 6pm – 8pm

Baton Rouge Main Library
7711 Goodwood Blvd
Baton Rouge, LA 70806
Second Floor



There is no cost for the class, but it is recommended you obtain the class text, *Technician Class 2014-2018 by Gordon West, WB6NOA.* It can be obtained from BRARC (contacts below) or at Amazon.com.

No preregistration required. For more information, contact:

[redacted] **contact:**

- **Buddy Brown, N5BUD 225.573.2111**
- **Jon Reise, WA9JBR 225.388.5776**

Items for Sale

Wayne Matherne (N5YFC) has the following item for sale:

Ten Tec Jupiter with Ten Tec Mic

And Power Cable. $600

Wayne N5YFC

(225) 667-4721

Gerard Du Cote (W5TZX) has a complete station for sale:

Yaesu FT-857D Multi Band Transceiver
With separation kit and mobile mounts
And Yaesu MH-59 remote control microphone
LDG YT-100 Automatic Tuner with SWR Meter
Signalink USB includes USB CAT control cable
Ready for PSK-31 and remote operation with a PC.
Also includes a G5RV. It is a station ready for QRV
(225) 225-324-7461. [redacted]

BRARC EQUIPMENT AVAILABLE FOR LOAN

ITEM DESCRIPTION	MFG	Model #	SERIAL #	LOCATION	AVAILABLE
Antenna Analyzer	MFJ	259		K5DFD	Yes
Bandpass Filter 10m	W3NQN			K5DFD	Yes
Bandpass Filter 15m	W3NQN			K5DFD	Yes
Bandpass Filter 20m	W3NQN			K5DFD	Yes
Bandpass Filter 40m	W3NQN			K5DFD	Yes
Bandpass Filter 80m	W3NQN			K5DFD	Yes
Crimping Tool	West Mountain Radio	Power Crimp		K5DFD	Yes
FM Deviation Meter	Lampkin		185	K5DFD	Yes
Power Supply (13.8V @ 20A)	Icom	PS-55	5194	K5DFD	Yes
Kit Building Tools				K5DFD	Yes
Power Supply (12 V/A)	ER	PS-104		K5DFD	Yes
Wattmeter	Bird	43	127199	K5DFD	Yes
5w Slug				K5DFD	Yes
50w Slug				K5DFD	Yes
100w Slug				K5DFD	Yes
250w Slug				K5DFD	Yes
1000w Slug				K5DFD	Yes
2500w Slug				K5DFD	Yes

David Ducote K5DFD (225) 603-0801 (cell)

Upcoming Area Hamfests:

7/16/2016-Slidell EOC Hamfest

http://www.arrl.org/hamfests/slidell-eoc-hamfest-3

8/13/2016-Shreveport Amateur Radio Association (SARA) Hamfest

http://shreveporthamfest.com/

Editor's Note: *I attended this hamfest last year and it was a lot of fun. It looks to be even bigger this year!!-Todd KB5TMD*

Upgrades

The Baton Rouge Amateur Radio club would like to congratulate Mark Logan (KG5IUJ) of Baker on his recent upgrade to Extra Class. Congratulations, Mark!!

Save the Date
June 18th LIGO Visit

Would you like to tour the LIGO (Laser Interferometer Gravitational-Wave Observatory) facility located in Livingston Parish and home of one of the world's first gravitation wave detectors?
BRARC plans a visit for club members and families on a LIGO "Science Saturday."
Pencil June 18th on your calendar and stayed tuned for further details.

Red Stick Maker's Expo

BRARC participated in the Red Stick Maker's Expo held on Saturday April 30 at the Main EBRP Library. Dan (KF5TQN) led the club's efforts with a demonstration of APRS and SDR. Buddy (N5BUD) showed off several nicely constructed QRP radios and pieces of test equipment he has built from kits as well as circuits of his own design.

Hank (K5HDE) powered up his homebrew 40 meter tube-type transmitter and Dick (N5KIP) set up a low power CW station on 40 meters illustrating the principles of amateur radio operation.
Thornton (KG5HLC) brought brochures explaining amateur radio and the role of BRARC. Others assisting were Mary (WB5LBR) and Mike (KG5MYX) and Jerry (W5AJD).

Stormy weather adversely impacted the expected turnout for the event, however, among those attending were several who lingered at the club's table, expressed interest in learning more about amateur radio and possibly attending the ongoing technician class.

New 440 Mhz Repeater Update!!

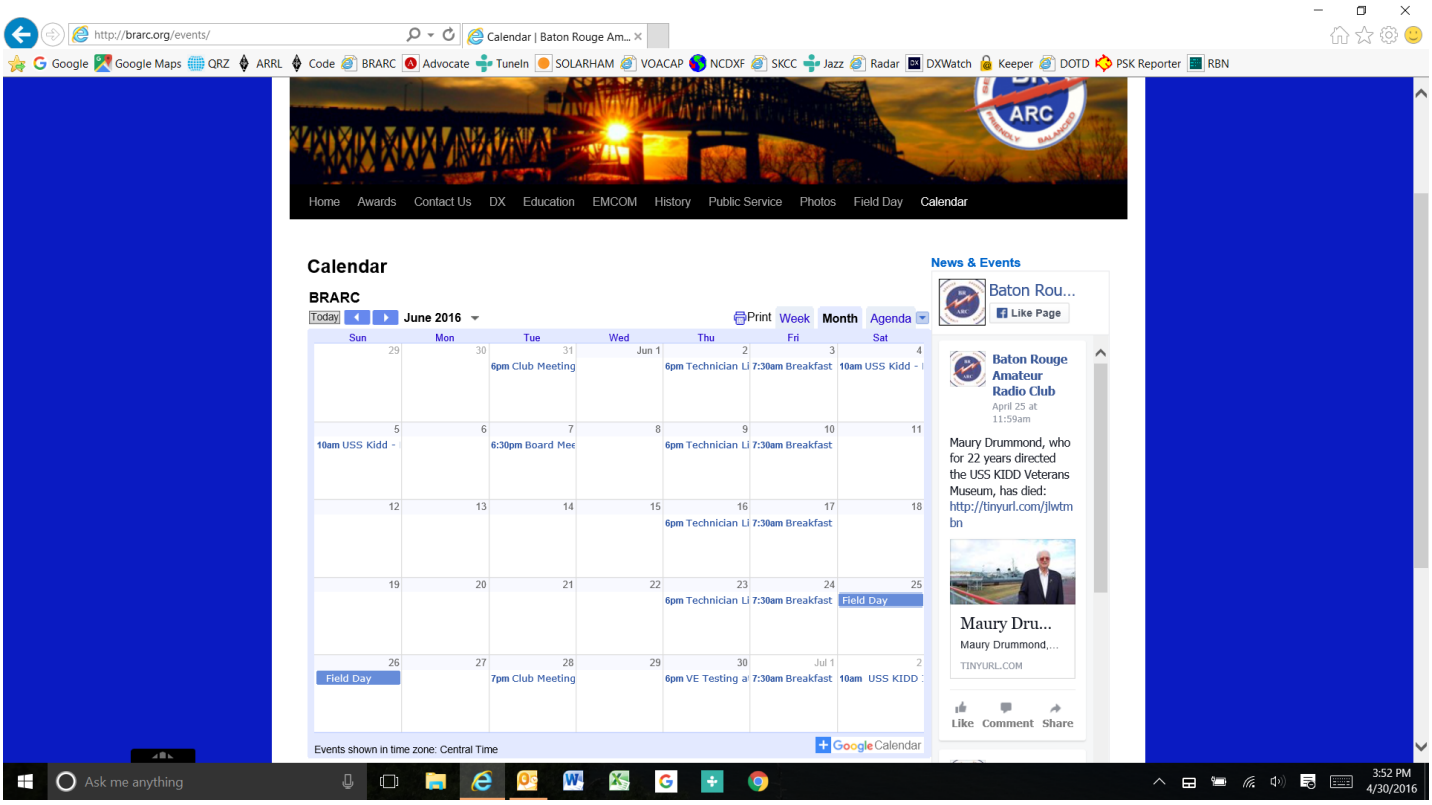
Last Friday the new 440 Mhz repeater was installed at the Baton Rouge General Hospital on Florida Blvd. The original repeater failed after several years of service. The new machine is a Yaesu Fusion DR-1X repeater with new Celwave 6 cavity duplexers. The installation team consisted of Matt Anderson (KN5KNZ), Buddy Brown (N5BUD), Keith Davis (KE5LVT), Jerry Hunt (W5AJD), Jon Reise (WA5JBR) and Ken Shutt (W5KQ). The existing antenna exhibited high SWR (>3.0) so the output power was limited to 5 watts. The repeater appears to be operating satisfactorily with range similar to the old machine. Range should improve when the antenna/feedline problems are resolved and output power is increased. A photo of the new repeater is attached.

73 de Ken W5KQ

Editors Note: The antenna feed line has been replaced and the repeater is now at 25 watts output.

Keep Up to Date on BRARC Events

Now use our new BRARC Google calendar to find out about upcoming club events. Click *Calendar* on the drop down menu on our home page, www.brarc.org. We are posting events through 2016 as they become available. If you have an event you want posted, contact our webmaster Jon Krupsky, WA5MLF [redacted]



W5GIX Activates Acadian Cultural Center

Brett Hebert, KG5IQU activated the Acadian Cultural Center (HP-17) in Lafayette, LA on April 22 & 23. He was assisted by his wife, Synomen KG5IRS, along with their two children, who are also Amateur Radio operators. Jon Reise, WA9JBR joined the operation on Saturday, along with several Hams from the local Lafayette radio club. The equipment consisted of a Yaesu FT-991 running 100 W on battery power to 40 and 20 meter end fed wire antennas at 25 ft. The operation accounted for 177 contacts in 40 states, including Alaska! The weather was perfect with sunny skies and temperatures in the high 70's and low 80's. The Acadian Cultural Center features the Acadians who settled Louisiana. It shares their history, customs, language, and contemporary culture with exhibits films, programs, and boat tours of Bayou Vermilion. The Center is part of the Jean Lafitte National Historical Park and Preserve system.

W5GIX will again be activating several of the Jean Lafitte sites (there are 6 in total) on August 25 – 28 for the National Park Service Founders Day Centennial. Operators are needed. Contact Brett Hebert [redacted] to sign up or to get the details.

BRARC Celebrates May Day at the USS KIDD

Several Club members participated in the May Day activities at the USS KIDD Museum on May 1, 2016. The W5KID operating station was set up in the museum lobby, to demonstrate Amateur Radio to the museum goers. Visitors were interested in the technology, as well. The TenTec station operated on 20 m in the museum, while the FT-450D station was used on board the ship for contacts. The stations made contacts in several states, including a VE8 in Canada's NWT. Contacts were also made in the Florida QSO Party. The booth was manned by Buddy N5BUD, Thornton KG5HLC, Dick N5KIP, Brett KG5IQU, Mike KG5MYX, and Jon WA9JBR.

VP8 DXpedition Presentation to

South Sandwich & South Georgia

David Assaf W5XU, held a room of 50 members and guests, capitated for 90 minutes as he talked about his experiences as a member of the DXpedition to South Sandwich & South Georgia islands. His presentation was made at the March monthly BRARC meeting at the Main Library at Goodwood. BRARC was proud to be one of the sponsors of the VP8 operation. Our club logo is displayed above.

The South Georgia and South Sandwich Islands are 1500 km east of the Falkland Islands in the Antarctic Convergence zone and only accessible by boat. These DX entities had not been activated since 2002 and were in the Top Ten Most Wanted DX List. The DXpedition was two years in the planning. The 13 member international team of operators activated VP8STI on Thule Island in the South Sandwich Island group from 18-25 Jan 2016 and VP8SGI on South Georgia Island from 29 Jan to 6 Feb 2016. The team chartered the R. V. Braveheart vessel,

which provided 16 days of journey at sea. The crew of 6 provided endless physical and moral support.
The team encountered numerous hardships, many of them weather related. VP8STI had eight days of radio operation where the LF antennas were erected in a few days after the start. VP8SGI had nine days of radio operation where all antennas were ready from the start. Radio conditions were more heavily affected by solar events at VP8STI, which mostly affected the higher bands. Openings for NA and Asia were more limited at VP8STI, most likely due to the effects of the local terrain.
54,642 contacts were made by VP8STI, 25% phone, 67% CW, and 8% digital. VP8SGI totaled 82,847 contacts, 25% phone, 69% CW, and 6% digital. Thanks go to Steve Raacke, KC5SAS, who provided the video of David Assaf's presentation. [redacted]. For a detailed story of the DXpedition, go to: www.ncdxf.org/pages/newsletter.html and click on the "Spring 2016" newsletter.

VP8STI operating site with HF Yagis on top of the ridge.

Moving material up the rock-faced cliff at VP8STI.

73 from the VP8STI/VP8SGI team and the Braveheart captain and crew.

Board endorses Sponsorship Program

The board endorsed a new program in which club members can volunteer to serve as sponsors for newly licensed "Hams" and individuals interested in amateur radio. These "sponsors" would provide support by ensuring that these individuals have a list of club meeting dates, events, website and facebook addresses, etc. Most importantly, sponsors will serve as a friend to ensure they feel welcome at club functions and are personally invited to participate in club activities. Sponsors differ from "Elmers" in that the sponsor's function is to help integrate the newcomers into the club while "Elmers" serve a more technical function. Elmers function as the resource center for technically related questions and knowledge related to all areas of amateur radio.

If you are interested in helping new members and newly licensed "hams" feel at home in our club please contact any of the following club members: Thornton Cofield KG5HLC, Jon Reise WA9JBR, Brett Hebert KG5IRQ, or Ty Mixon KA1TY.

Conducted this month by *The Amateur Formerly Known As WN5IBT*

How Uda keep 'em down on the (antenna) farm, after they've seen Yagi

Springtime. The mailbox offers Burpee seed catalogs and ham magazines bursting with antenna articles. Time to plant flowers and veggies, and to build antennas. Let's build an antenna suitable for a NPOTA expedition. Requirements:

- *quick put-up and take-down*
- *compact and lightweight to transport*
- *20 meter band, no tuner required*
- *good for QRP or QRO*
- *not a cloud warmer*
- *no trees needed*

A vertical ought to fit the requirements, built with one of those collapsible fiberglass fishing poles (crappie poles). A 20 footer, without the tip section, is long enough for 20 meters. A stand repurposed from a portable work light will hold it upright without guys, even in a modest breeze. A wire runs up inside the pole, exiting through a hole near the bottom. A string tied to the wire exits at the top to support the wire. The pole slides over a bit of recycled broom handle, which in turn slides into the light stand. A fixture made of PC board material holds a coax connector and banana jacks. The base of the pole is off the ground a little ways. That's important in this design.

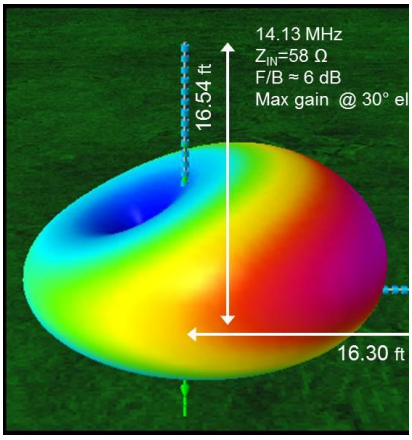
Conventional antenna wisdom says that a vertical will need lots of radials to be effective. True, especially if the radials are on or below ground. But if they are elevated, even a little bit, you can get away with a lot fewer – even just one. The price we pay is that the length of the radial is important in making the antenna resonant.

Think of an ordinary half-wave dipole

length in ft = 468 ÷ frequency in MHz

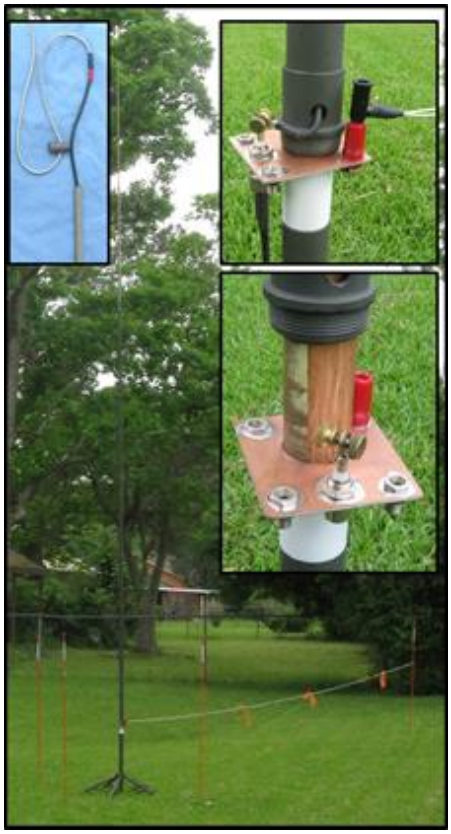
Now bend one half up 90 degrees. You have an "L" antenna. If the horizontal part is close to the ground, we'll call it a radial. The bend, and the proximity to earth, will make the required length not quite as the formula predicts, but all antennas need a bit of tweak and prune.

Will such a thing really work? Sure, but we don't have to guess. Nowadays there are free antenna modelling programs that allow us to try out ideas and weed out the poor ones before the first wire is cut. To be sure, you'll never make a QSO on an antenna model, but it will help get the building process started.



In this case the model makes some interesting predictions: The radiation pattern has some slight directivity (about an S-unit) in the direction of the radial.

The feed point impedance is close to 50 Ω, closer than that of a conventional vertical with lots of radials. The pattern shows a fairly low take-off angle – no cloud warmer here. And, a real plus, the antenna can be tuned by changing the length of the radial only.



Here's the antenna deployed for action, with close ups of the feed point and the tip. Notice the use of orange driveway markers, both as safety markers and to support the radial wire, and orange streamers to make the radial more visible.

Models are fine, but the proof is the operating. This antenna, running with only 10 watts, was a good performer at the Gulf Islands National Seashore a few weeks ago, with QSOs from CA to MA and points in between.

Till next month… keep building…get outside… get on the air…. 73