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Hamtown Wave

Western Tidewater Radio Association

Volume 3 - No 12 - December 2008

Merry Christmas



WTRA NEW HAMS Q&A BREAKFAST

Linda Wise W7PRO



During breakfast, many conversations took place at each table on a wide ranging variety of topics. Once breakfast was done, Jim W4PRO had each of the new hams describe their path into amateur radio and what their interests are. Then the OT's had a chance to explain a bit about their particular interests in the hobby.

As a follow-up to this very successful event, Jim W4PRO has announced another WTRA Hands-On Work Session at his QTH. By building the twin lead J-poles described by Fred at the breakfast, attendees can get some "real-world" experience both with soldering and basic antenna concepts. See Page 2 for a more detailed announcement.

(Continued on page 2)

On Saturday November 22, members and guests of the WTRA, old timer and new ham alike, met for breakfast at Z's in Smithfield. The theme of the breakfast was "What Now" and was intended to provide an informal gathering of new hams and elmers in order to allow the new folks an opportunity to ask questions and get answers. First things first though, pictured above Bob Lucas and Ron Harvey consider the choices for breakfast.

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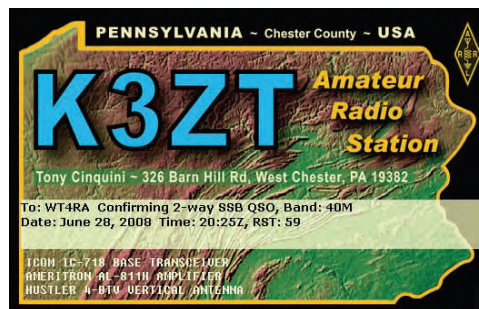
WELCOME NEW MEMBERS!

Please join the WTRA leadership in welcoming the following new members:

- Bob Lucus - KJ4HMU
- Bobby Pennington - KJ4HMY
- Hope Uzun - KJ4HMX
- Joseph Wilson - KJ4JMY
- Rob Wilson - KJ4HMZ

An updated club roster was e-mailed to WTRA members on Nov 11, 2008.

RECENT CLUB QSL ACTIVITY: The K3ZT e-QSL (shown) was received during November for a contact at this year's Field Day. Also our e-QSL to W2KI (also Field Day) for an 80 meter contact was rejected as not being in his log.



HANDS - ON WORKSHOP

(Continued from page 1)

WHEN? Saturday December 6th at 9:00 am

WHERE? 8256 Muddy Cross Drive, Smithfield

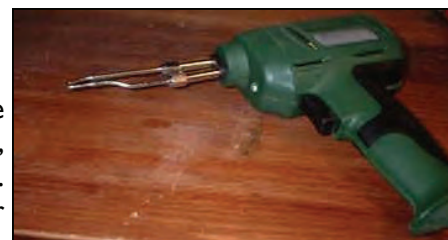
Turn onto Turner Drive at the intersection of Benns Church Blvd and Turner Dr. Drive 2.0 miles to Muddy Cross Drive, turn left and drive 0.4 miles on Muddy Cross to the home of W4 and W7PRO. Come in the garage door to the workshop.



WHAT: This is a follow-up to the meeting last Saturday morning. Fred (KG4BKI) explained that simple two-meter antennas can be made from TV twin-lead and suggested a work session where we can fabricate some antennas and learn how to solder.

Dick Harrell (W4RBH) will be the coordinator.

We will need to collect the twin-lead and coaxial cable from Lyle. We will also need a few PL-259 connectors, depending on how many antennas we want to make. Please contact Dick if you can help with supplies and/or tools.



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The Wave Workbench

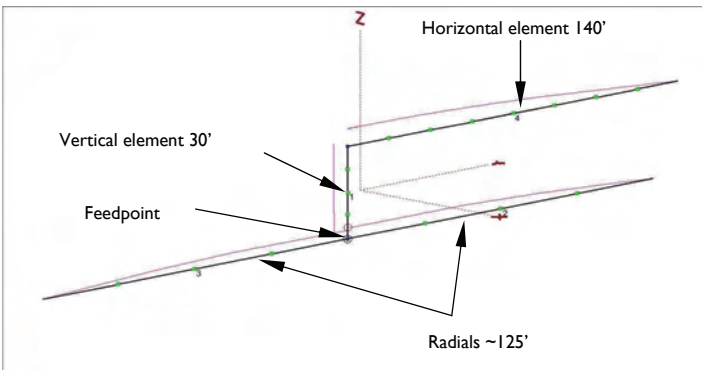
Technical Tips & Tricks for the Radio Amateur

My First Excursion into the “Gentleman’s Band”

N4KIT

Most of you know that I am pretty into amateur radio contesting and building antennas. During the recent CW and ‘Phone portions of the ARRL Sweepstakes Contest, I discovered something that threw me a bit. That was that I achieved a better score and indeed, had more fun, in the CW weekend. Therefore, in looking at the contest calendars, I was particularly interested in CW events and noticed the 160 meter contest due to run the weekend of December 6th. Now I had always thought of 160 meters as a “special place”, home of OTs and very experienced hams. I thought maybe this would be the year to give this a try.

One problem, though. I have never had an antenna capable of operation on 160 meters. The reasons for this are many, but mainly, a 160 meter antenna is (usually) BIG. But now that I live at a QTH with some real estate (and no HOAs!), I was willing to give it a shot. The first bridge to cross was to select an antenna. My first thought was the trusty ole 1/2 wave dipole. But a 1/2 wave dipole for 160 meters is about 260’ long. My main concern was that feedline would cause such a long antenna to droop almost to the ground. So the dipole is out. Next thought was a vertical, which is generally 1/4 wavelength long. For 160, that would be about 130ish feet. The problem here is top support for 130’ of wire. My trees are tall, but not that tall. So the vertical is out too. After a bit of re-research, it seems that most 160 meter operators generally settle on an inverted L. For those that are not familiar with this antenna, it is a combi-



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DX Opportunities

DATES	COUNTRY	CALL/PFX	DATES	COUNTRY	CALL/PFX
12/3 - 12/28	El Salvador	YS1	12/04 - 12/07	India	VU
12/05 - 12/09	American Samoa	KH8	12/5 - 01/05	Antarctica	KC4AAA
12/06 - 12/20	Central Kiribati	T30	12/07 - 12/12	New Caledonia	FK
12/10 - 12/31	Crozet Is	FT5WO	12/13 - 12/14	Puerto Rico	KP4
12/15 - 01/15	Gabon	TR50R	12/15 - 01/30	Cambodia	XU7ACY
12/17 - 12/19	Tonga	A35KL	12/21 - 01/03	Morocco	CN89NY
12/26 - 2/15	Antarctica	OP0LE	12/26 - 02/28	Ivory Coast	TU8
12/28 - 01/02	Ogasawara	JD1BMH	12/31 - 01/09	Ascension Is	ZD8UW
12/31 - 01/10	Bangladesh	EB7DX			

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WT4RA REPEATER STATUS

Dick Harrel W4RBH

The WT4RA repeater (147.195+), remote base, and packet node system continues to function normally. Members are encouraged to check-in to the weekly net sessions each Thursday at 7:30 PM.

ODDS n ENDS - Repeater DTMF test feature

Do you ever wonder if the DTMF keypad on you microphone or rig is working correctly. The repeater provides a way to test your DTMF keypad to make sure that all of the keys are working properly. This test is open for use by all amateur radio operators. To run the test enter the access code "375" and while keeping the microphone keyed enter any combination (or all) of the numbers and letters on your keypad, then un-key your radio. The repeater will respond with the announcement "Key pad test" and then will read back all of the numbers and letters that it was able to decode. It is a good idea to run this test every now and then to make sure that all of the keys on your keypad are working correctly.

Upcoming Contests

Listed below is a selection of interesting contests coming this month. For more complete contest calendars, visit the WA7BNM Calendar at <http://www.hornucopia.com/contestcal/contestcal.html> or the ARRL Contest Calendars at <http://www.arrl.org/contests/>

CONTEST	DATE/TIME	MODES	MORE INFO
ARRL 160 meter	2200z 12/05 - 1600z 12/07	CW only	www.arrl.org/contests
TARA RTTY Melee	0000z 12/06 - 2400z 12/06	RTTY	www.n2ty.org
ARRL 10 meter	0000z 12/13 - 2400z 12/14	Phone/CW	www.arrl.org/contests
Russian 160 meter	0000z 12/13 - 0200z 12/13	Phone/CW	www.radio.ru
Lighthouse Xmas QSO	0001z 12/20 - 2359z 01/04	Phone/CW	arlhs.com
RAC Winter	0000z 12/27 - 2359z 12/27	Phone/CW	www.rac.ca
Stew Perry Top Band	1500z 12/27 - 1500z 12/28	CW	www.arrl.org/contests

Buy - Sell - Trade

Jim Jackson - KD4FN has the following items are for sale. Contact Jim direct via landline at 365-0125. All items come with the Owners Manuals.

- Kenwood TS-520SE with CW and SSB filters along with matching SP-520 external speaker \$325.00
- Drake MN 2000 Antenna tuner, 80 - 10 meters \$215.00
- Kenwood AT 239 Antenna tuner \$215.00
- Yaesu FT-100D Transceiver with Accessories \$650.00



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ISLE OF WIGHT SHELTER STATIONS UPDATE

Dick Harrell W4RBH



VHF/UHF ham radio equipment and antennas have been installed at Smithfield High School, Smithfield Middle School, Carrollton Elementary, and Windsor High School to provide radio communications for these locations should they be activated for use as Isle of Wight Shelters.

This past summer the Smithfield High School antenna was removed and its feed line pulled back into the building to allow for installation of a new roof. On November 10, 2008, this antenna was re-installed by Bill Goode, Isle of Wight School Maintenance, and Dick Harrell, W4RBH. Bill is shown in the picture putting the final touches on the antenna installation. Bill has worked closely with District 10 ARES/RACES personnel to coordinate the installation of the antennas and associated cables at each of the schools. The final installation of the antenna looking generally in the direction of the Isle of Wight EOC is shown in the second picture.



Other shelter antenna work over the past year or so includes the replacement of the antenna and feed line at Windsor High School where the previous antenna was destroyed by a lighting strike, which also damaged the associated feed line, and the installation of a new antenna, feed line, and termination box at Carrollton Elementary.

There has been some discussion about also having a ham radio communications capability at the satellite shelter proposed for Carrsville Elementary School, so maybe some day next year we

ARRL November Sweepstakes

Jim Wise - W4PRO

Next to Field Day, Sweepstakes is the most popular amateur radio on-the-air activity. It has been sponsored every year for the last seventy-five years by the ARRL. Its format is probably what brings out so many participants.

Unlike in many contests, a station can be contacted for points only once, not on every band as in Field Day and the major DX contests. That takes away some of the advantages enjoyed by the dedicated contest stations that pour the legal limit of RF into separate rigs on each of the HF bands. Also, the objective is to exchange information with stations in the fifty states and Canadian provinces comprising the eighty ARRL sections, not DXCC countries. Here on the East Coast, you can put a hefty signal into most populated areas of the country with just a transceiver and a dipole antenna. Most operation is on eighty and forty meters, which narrows down the number of stations with beam antennas considerably.

Finally, and this is really what sets SS apart from all of the other contests, is the exchange. In most contests, all you have to do is get the guy's call and his state or zone or country, depending on the contest rules. You have to exchange signal reports, but almost everyone sends a rubberstamp five-nine or five-nine-nine report. No copying challenge there.

In the Sweepstakes, the exchange consists of five parts: serial number, precedence, station of origin, check and ARRL section. That probably sounds familiar if you have copied any message traffic over the air, and that's exactly where it comes from.

The ARRL Sweeps originated when most of the ham population consisted of traffic handlers and rag-chewers. We didn't have phone on forty meters, a fifteen meter band or the expertise to do anything higher in frequency than fourteen megacycles, excuse

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SKYWARN RECOGNITION DAY

John Benignus K4KLB

[SKYWARN Recognition Day](#) is a nationwide event coordinated by the National Weather Service. The National Weather Service in Wakefield, Virginia and the Wakefield SKYWARN Amateur Radio Support Team will be participating in SKYWARN Recognition Day this year along with [many other NWS offices](#), and we hope to hear you on the air!

From the SKYWARN desk at Wakefield, we are able to operate from 80 meters on up, and plan to operate primarily voice on HF, though there's a chance we'll do some CW and possibly some PSK-31. This isn't a contest. It's just a chance for members of the SKYWARN Amateur Radio Support Team to come down to Wakefield and operate from the SKYWARN desk while having a great time meeting new people in the office and on the air.

We will be operating SSB phone, usually in the General Class portions of the 80, 40, 20, 15, and 10 meter bands. Listen for WX4AKQ calling CQ. We'll also be taking contacts via APRS messaging. Send your message to WX4AKQ-I. We'll also be monitoring for incoming contacts via Echolink and IRLP.

Midland NWR Receiver Giveaway

One random domestic call sign will be drawn from the logs at the conclusion of the event. The winner will receive a new Midland NOAA Weather Radio Receiver with SAME, compliments of SKYWARN. There is no need to QSL for this drawing. Our only request is that if you already have a working NWR receiver, please pass one along to someone who doesn't-- a neighbor, relative, school, church, etc.

QSL Cards & Certificates

WX4AKQ will be distributing QSL cards for this event. Please QSL via KG4PEQ at the address below:

Steve Crow KG4PEQ
6417 Mary Esther Lane
Mechanicsville, Virginia 23111-5030

If you wish to receive a QSL card, please send your card (or a letter confirming the contact if you do not have a QSL card) and enclose a self-addressed, stamped envelope. QSL cards received without a SASE will receive replies as the budget allows.

You may also eQSL directly to WX4AKQ.

Not all NWS offices will be offering QSL cards, but the NWS Central Region Headquarters has a list of offices which will be offering cards and the addresses to which you may send your card. You can find that list at <http://www.crh.noaa.gov/hamradio/QslCardInfo.php>

The NWS Central Region Headquarters will be offering an 8x10 certificate to stations which contact an NWS office during SKYWARN Recognition Day. You will just need to submit a list of the NWS stations you worked. No detailed logs are required. You can find the address and other certificate details at <http://www.crh.noaa.gov/hamradio/certificate.php>



Calendar

DATE	EVENT	LOCATION
Every Tues 7:30 pm	WTRA Net	147.195
Sat Dec 20 pm TBA	WTRA Christmas Party	Villas at Smithfield Clubhouse
Monday Jan 12	WTRA Annual Meeting (Election of Officers)	TBA
Sat Feb 07	Frostfest	Richmond Raceway Park

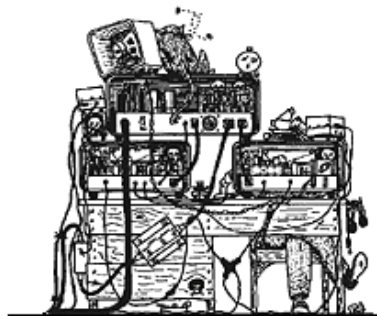
Treasurer's Report

Dick Harrel W4RBH

Treasurer's Report (by W4RBH)

Main Account Balance as of 11/25/2008	\$ 1124.28
Remaining budgeted expenses for 2008	\$ 156.85
Recent expenses:	
Flowers W4RGN SK	\$ 63.00
VE Program Account Balance as of 11/25/2008	\$ 236.53

There are currently 56 active members on the Club Roster.

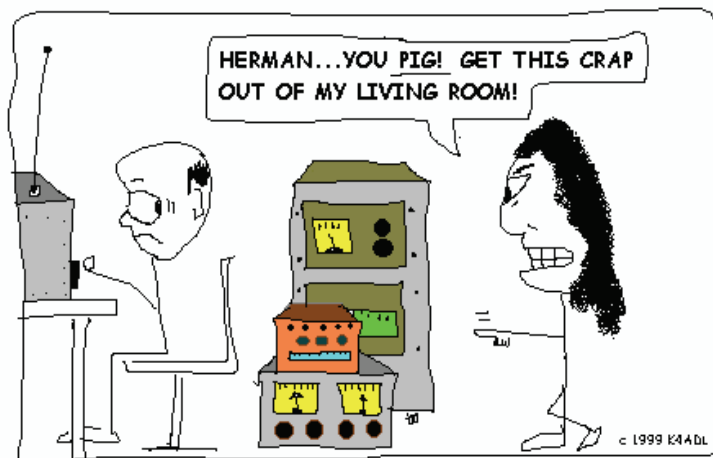


The K4ADL Kartoon Korner

By Andy Cohn K4ADL

"Original ham radio cartoons of dubious merit"

www.qsl.net/k4adi



THE REAL ORIGIN OF THE TERM "HAM RADIO."



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ARRL November Sweepstakes

Jim Wise - W4PRO

me, I meant kilohertz. Sweepstakes is a contest of skill and endurance, but it can be a lot of fun if you participate in a way that suits your own skill level and temperament.

Personally, I enjoy marathon type contesting less and less as I grow older. In years past, I have run up some pretty decent scores, even with low power and sometimes with very simple antennas. But for several years, I have been a part of a team that operates for the 24 hour period as a group making it a fun outing with the guys. Our main goal is to make a "Clean Sweep" of all of the eighty sections. A close second is to enjoy lots of war stories and sea stories. Most of the group have served in the military and have a technical background, so setting up a station and keeping it running is not a big deal. I almost forgot to mention that we do eat very well.

How did we do this year?

We set up at a beach condo for the first half of the contest, which is all CW. Our equipment performed well, but we spent so much time searching for our last section for a clean sweep that we didn't make many contacts, about 340 or so. The guy up in Canada's Northwest Territory we all depend on for that section had to work that weekend and the only other operator on from NT was a newcomer who was overwhelmed by the hordes of people following him all over the bands trying to get their clean sweep. He operated only sporadically and we just didn't get hooked up with him.

For the second half, the phone weekend, we used my station here in Smithfield. Most of the same operators were here and with an existing station to operate it looked like this would be a stress-free operation. But with only two-days to go before kickoff, my only antenna on forty meters developed a high SWR and was not usable. About that time, a cold front stalled in the area, forcing the installation of a temporary replacement in the rain.

Then, only fifteen minutes before the starting gun, the logging computer quit and had to be replaced with a laptop, which, fortunately for us, had our favorite logging program already installed. We jumpered in an external monitor and keyboard to the laptop and started only a few minutes late.

After that, it was clear sailing and by eight in the morning on Sunday we worked our last section for a clean sweep. We spent the rest of the day running stations and ended up with 638 contacts. Not a big score, but typical for us since our goals do not include winning the contest. That would take the fun out of it.

I am hearing a lot of grumbling about having to depend on that solitary operator up in the Northwest Territory

for our clean sweep and some of the guys suggested that we should think about catching a plane up to the NT for the contest weekend and making everyone happy. We could run up a whammy of a score from there with everyone calling us day and night for their last section.

But I do see a couple of problems with that. It is extremely cold up there near the Alaskan border in November and, personally, I am rather partial to palm trees. Secondly, who are we going to work for our own Clean Sweep? That same guy? I don't think so. He would probably put us on his black list for invading his territory.

Workbench - Inverted L

(Continued from page 3)

nation of a vertical and horizontal antenna. After investigation, I found that I would need to run at least a couple of radials in order to keep the ground resistance down and not lose a significant amount of power to ground loss. If I made the antenna element longer than the 1/4 wavelength norm (132' for 160 meters), the resulting feedpoint impedance would be inductively reactive and I could use only a series capacitance to correct the feedpoint for a good match.

So the next step was to gather the appropriate materials. I had in the antenna box a 165' length of No 14 copper-clad antenna wire which would be suitable for the element. Since it makes me heartsick to cut copper-wire, and I needed the element long anyway, I opted to leave it at 165'. Some more searching in the shop turned up enough wire to make 2 125' radials. From work, I had a 6x6x4 PVC electrical box perfect to house the feedpoint components. My junk box graciously supplied a 3 section air variable capacitor of 145 to 505 pf per section. Adding some hardware and wire from the shop supplies completed the needed stuff to make the capacitive match for the feed point.

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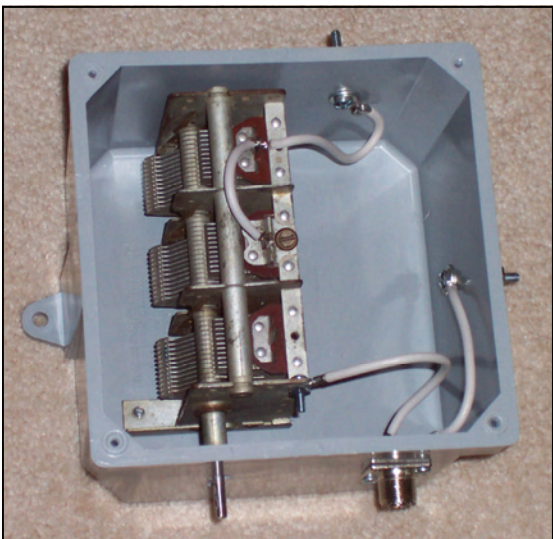
Workbench - Inverted L



(Continued from page 8)

With all the needed parts in hand, I set out to build the matching box for the antenna. First, the box was drilled for the shaft of the air-variable as well as for mounting holes for the cap, an SO-239 connector for the feedline and the Antenna and Ground lugs. Just in case, and since my element was considerably longer than the specified 1/4 wavelength, I elected to jumper in two sections of the cap. With that completed, I ventured into the yard and took down my Windom and put up the L. The vertical portion is 30' and the horizontal is 135', so it fit the space formerly occupied by the Windom (134') perfectly.

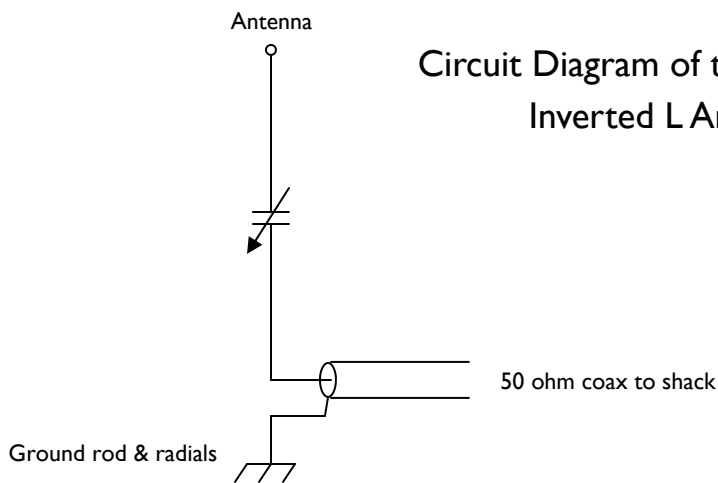
Feedpoint match box parts



Once erected, the feed was connected, radials run out, and the trusty antenna analyzer hooked up to tune the setup. I found that a setting of about 60% on the cap yielded the best impedance, about $65 - j4$, for an SWR at design frequency of 1.6:1. A quick sweep with the analyzer showed a 3:1 bandwidth from 1805 to 1955 kHz. The tuner in the rig would work to 3:1, so this setup should give me about 75% coverage of the 160 meter band.

Completed feedpoint match box minus the cover

With just 3 days to go until the contest, the antenna is up and tuned. Next month, I'll continue the story with some information on how this contraption performed in the contest.



Circuit Diagram of the 160 meter Inverted L Antenna

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