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January

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Please Pay Your 2013 Dues!

Mail to: Stan Engel, WA2UET PO Box 153 Ghent, NY 12075 Or bring with you to meeting Make checks Payable to RVWARS



Please join us on the Tuesday night Roundtable on 147.210 at 7:00 PM. ALL are welcome! Use the EchoLink (K2RVW-R) if need be.



RVWARS-TARA RUMBLE

Sunday January 20, 2013, 6:00 PM

Four Brothers Restaurant, Routes 9 and 9H in Valatie At the Traffic Circle

Please let Tom, WE2G, know if you will attend the rumble. we2g_1@yahoo.com

See photos and past Newsletters and much much more club information at: www.w2jsn.com

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RVWARS WEB PAGE

The Web Page has been updated! We added some info on the main page to try to keep folks aware of events. Comments and suggestions are welcome. We will keep Dave Clappers design at least for now. Let me know what you think. www.rvwars.com

Join our Yahoo Group at the bottom of the web page. Simply enter your email address.

N2LEN Repeaters

The N2LEN Repeater Network: 147.150 114.8hz East Windham, NY 449.025 114.8hz New Baltimore, NY 448.275 114.8hz Colonel's Chair Ridge 442.050 114.8hz Sam's Point, NY 2200' Yahoo Groups

http://groups.yahoo.com/group/ N2LENREPEATER/ http://groups.yahoo.com/group/ ECHOLINK/ http://groups.yahoo.com/group/ GCNYARESRACES/ Echolink Node #6269 IRLP Node #4207

REPEATER REPORT

We still do not have the repaired antenna on the tower. Arnie is contacting InSight with his insurance info and should be getting back to me soon.

The phone has been disconnected. It cost to much and we don't need it! Just an expensive convenience. Initially the phone bill was about \$25/ month but now it was closer to \$35/ month. It was a convenient way to program the repeater controller but it can be done with the radio as well.

We are thinking about adding a 10 or 6 meter repeater. There are a lot of things to consider first but the thoughts are there. Any input is more than welcome. Which band is more useful or fun? Availability of gear. Just in the thinking stages so far! Please give us some input! The repeater is funded by the members and it is up to you to tell us what you want up there.

Join the RVWARS Yahoo Group. Go to the <u>www.rvwars.com</u> web site and scroll to the bottom of the page and simply enter your email address into the box.



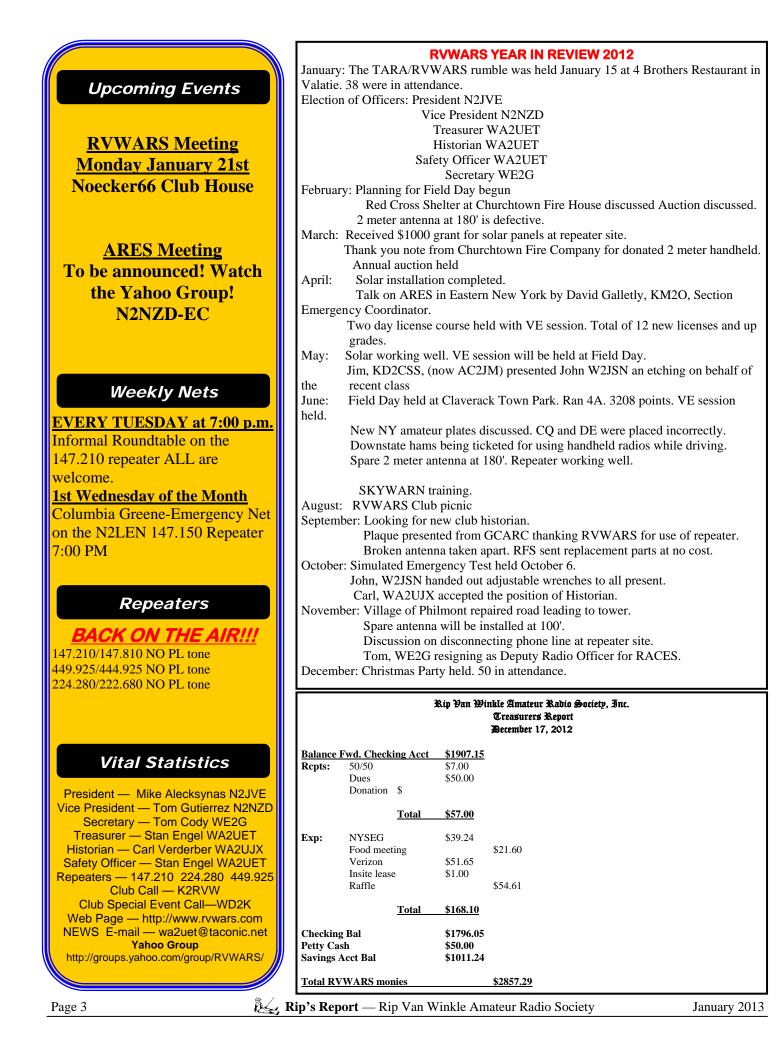
RVW WORK PARTY

Unless we have another ice storm or something that might damage some of our stuff then no more work till spring. All of the utilities are underground. I think the only thing that is subject to storm damage are the solar panels and a couple of antennas mounted near the shelter.

New and Old HAMS needed!

Columbia County (ARES) "Amateur Radio Emergency Service" and (RACES) "Radio Amateur Civil Emergency Services" are seeking new members. We currently meet once a month at our station in the County Emergency Operation Center. We do an occasional public service event as ARES members where we utilize our communications skills and equipment to assist with public safety. We assist the County with Civil Emergencies and disaster communications when they request us. No equipment required. No experience required. Total voluntary participation. Your help is appreciated when needed to maintain communications during disaster, emergencies or public service events. If you think you might be interested, please email me or ask at field day or an RVW meeting.

Thank you. TomG (n2nzd@taconic.net)



Astatic D-104 Microphone Repair

Dec. 27, 2012

By: Carl J. Verderber WA2UJX

The Astatic D-104 (when on a T-GU stand is called a "lollipop") is a favored microphone of boat anchor transmitter users because of its high output and its sound characteristics. No mic amplifier is needed and that makes for a simpler set-up.

While working my Heathkit Apache transmitter, with a D-104 mic, in AM mode on the 75 meter band I had collected four stations in the QSO on Friday about 3:00 PM EST. I thought it would be a good time to test all six Astatic D-104 heads and test how each one sounded with the rig. SEE: fig. #1. Everyone was willing to give their opinions so I talked using one head then another and waited for four opinions each time for each and every head. Of course I numbered the heads and when we finished the exercise. I had two outstanding sounding heads, two great sounding heads, one that was OK but not great, and one that was terrible. I thanked the participants, ended the QSO, and set about trying to understand why number 6 head had sounded so bad.



Figure 1 Astatic D-104 on T-GU stand

Disassembling a D-104 head only requires removing four screws so that the front and rear covers expose the element assembly. Unsoldering two wire leads allows the assembly to be completely removed from the housing. The element assembly is the heart of the mic and is comprised of a Bakelite housing, a crystal element, the anvil, and the diaphragm – very carefully glued together. The crystal has two wires that connect it to the mic cable.



Figure 2 Disassembled parts of assembly

I was shocked to find the diaphragm was bent and malformed in many places along with having a coating of various glues and tar on 50 percent of its surface. Oh Boy – someone in the past tried to repair something and didn't know squat about what they were touching! I had to see if I could save this element assembly so I disassembled it using acetone and paint remover to soften the glue on the surface of the diaphragm and to also soften the original factory glues that held the parts together. See: Fig. # 2 (re-formed diaphragm).

I carefully reformed the diaphragm and cleaned the anvil and all places where old glue was located. You can see the anvil locked onto the crystal. The top of the anvil is glued to the diaphragm and audio vibrations move the crystal. The crystal is a Piezo device (it produces electrical signals when twisted) so as you talk, electrical signals are produced at an audio rate. See: Fig. #3



Figure 3 : Anvil on pizeo crystal

A crystal differs from a magnetic mic or a condenser mic in the way they produce the audio signal: A crystal mic produces a large audio signal from vibrating a salt crystal; a magnetic mic produces weak audio signals from a coil (mounted to a diaphragm) moving in a magnetic field (an electro-magnetic effect); a condenser mic is literally two large metal plates spaced extremely close together that from a capacitor and change capacity at the audio rate. An amp is used to bring the signal to useful levels.

I assembled the element assembly using very small amounts of super glue and contact cement. Testing audio performance of the newly assembled mic was satisfying but not exactly what I was anticipating. Although I brought every precaution and skill to bear, the mic only sounds good but not great. At least I tried! And #6 is more useable than when I started.

The conclusions I have are: 1. Each D -104 mic head produces a unique sound and some mics could be great sounding while some will be terrible; 2. I couldn't reproduce the factory assembly quality at my home shop.

I hope this project will inspire others to try their skills at rebuilding some old equipment and even if you fail, the learning process makes it all worthwhile. END

Holiday Classic Run

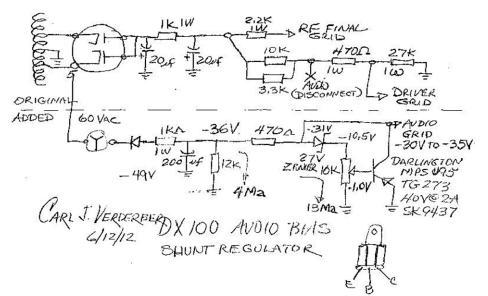
On Saturday, December 22, members of RVWARS provided communications for the Holiday Classic Run at Columbia Greene Community College. No incidents occurred during the race. A list of participants fol-Jim, KA2PEJ; lows: Jim, KC2OGK; John, KD2CCR and daughter Kendall; Tom, N2NZD and daughter Madison; Chris, N2PBN; Stan, WA2UET; and Tom, WE2G. Thanks to everyone for your assistance.

DX 100 Audio Bias Circuit Mod

Dec. 19, 2012

By: Carl J. Verderber WA2UJX

If you ever studied the bias string in the Heathkit DX 100 AM transmitter you will see that as originally designed, there is no regulation of the voltages for the Audio final, RF driver, and RF final grid bias sources. As you can see in the diagram, after the rectifier (6AL5) and a pi filter a series of resistors form a three (3) level voltage divider to supply proper –VDC grid bias voltages for three functions: audio final, RF driver, and RF final tubes.



During transmission and while talking, the audio signal is impressed upon the entire bias string. While observing the audio bias using an oscilloscope, one can watch the bias voltages change at the audio signal rate. Because class AB audio tube grids sink as well as source current, an unregulated bias source will change voltage at that audio rate.

I designed a completely separate audio grid bias "shunt regulator" circuit to provide a very low impedance source of voltage for the audio final tube grids. The circuit starts at pin 5 of the 6AL5 bias rectifier. (The Y symbol is just to ID a connection point) Approximately 60 VAC is rectified, filtered by the 1K ohm/200 uF cap, load regulated by a 12K ohm resistor, brought through a series string (470 ohm, Zenier diode, 10K potentiometer) where

the PNP Darlington transistor base bias (Vbe) can be varied. This varies the Ice (collector to emitter) current and sets the collector voltage for the audio driver transformer primary center tap. My 1625 audio finals are set to -35.5 VDC.

I built the circuit on an ancient terminal strip (See Picture). The transistor doesn't need a heatsink because the dissipated heat is low. Now, while monitoring the bias with an oscilloscope, there is no percepible change in bias voltage. Why is this important? The reason is with a well regulated and solid bias - transmitted audio is cleaner and has less distortion.

This circuit can be modified to be used in Heath Apache, Johnson Ranger/Viking/Valiant and other 50 – 150 Watt AM transmitters using class AB push-pull audio finals.

I hope you might consider a similar circuit to use with your transmitter. END



EVER STOP TO THINK, AND FORGET TO START AGAIN?

AREYOUA MEMBER OF MEMBER OF THE ARRL? We need to know PLEASE. Email Tom we2g_1@yahoo.com and let him know.

MUSING OF A CURMUDGEON



It seems that the hottest topic of conversation in the hobby is the "new" license structure. Particu-

lar heat is reserved for the "No Code Tech" which of course doesn't exist as a license class; they are referring to the Technician Class license.

When listening or reading the comments (and much of it is pure drivel) one tends to compare it with our own experience.

While thinking it through I found that our club and repeater do not exhibit the things we are told are endemic in the hobby today.

The wonders of modern electronic wizardry were put to work analyzing who we are. The results were interesting and from these I drew some interesting conclusions that are at odds with prevailing sentiment.. We are 47 years old on average OK, that's right on the national average. Our oldest member is 89 and the youngest 17. In license class we break down on the magic

spread sheet like this. EXTRA 11 ADVANCED 13 GENERAL 9 TECH PLUS 13 TECH 14 NOVICE 2 UNLICENSED 2 TOTAL 64

Please keep us posted on your up so we can maintain the club base.

Information was gleaned from a QRZ CD. It's amazing what Brother knows about us and it's available on this and other discs.

Again right on the national average. So why don't I see all the problems "endemic" in the hobby today? Could we just be lucky? NO! Resoundingly NO!

Courtesy and respect for others are not luck. Willingness to welcome and help newcomers regardless of license class is not luck. Mature discussion of a topic with consideration for the opinions of others is not luck. Concern for the well being of our fellow club members is not luck. Help for motorists is not luck. Public service is not luck. The key to what we have is simply that we judge others not by whether they have code privileges but by their actions. Simply having an Extra class license does not elevate one to the status of "paragon of virtue," it is our on and off air activities that determine whether or not we are hams.

Are we breaking new ground? No, we're keeping the traditions of Amateur Radio alive. As long as we do that our "luck" will continue. By Dave Watrous, WD2K 2/96

HAM FEAST II, A GREAT SUCCESS

ON TUESDAY 12/17/2012 ABOUT 50 FOLKS GATHERED TO CELEBRATE CHRISTMAS AND RAISE MONEY FOR OUR CLUB.... WE DID!

Last year, our Chinese auction and Elf "trash and treasure" profited the club approximately \$278.00. This year, we did even better. Thanks to your generosity and everyone's participation, the Chinese auction brought in \$336.00, the Elf trash and treasure bids totaled \$67.10 and that includes the \$0.75 that Preston found on the floor after the party. The radio raffle, after expenses yielded a profit of \$33.99 for a grand total profit of \$437.09. WOW and THANK YOU SO VERY MUCH.

Our generous donators included club members who donated and cooked and baked, what a ham feast!. Local contributors included R+D Deli, Stockport Garage, Dunkin Donuts in Valatie, Mario's Hardware, John Noecker, Mike Alecksynas, Patti Lensink, Joy Peterson, Jim Naegeli, Kaaterskill Farm Natural Stone House, White Stone Café, Val-Kin Car Wash, Van Allen Automotive...and numerous club members who brought in and donated "trash and treasure" for the Elf Auction.

WINNERS ARE AS FOIIOWS.... EVERYONE WHO CAME !!!!!!!!!!

BaoFeng Dual Band portable: AC2JM Jim

Cookies: KC2PWO (Patti), WA2UET (Stan), AC2JM (Jim), KB2BOL (Scott), Joy Peterson, KD2BQB (Les)

RND Deli: WE2G Tom and KD2CCU Jolene **Homemade scarf:** KC2AGM John

Stockport Garage oil change: KD2CCP Joe

\$25.00 Mastercard Gift Card (Van Allen): KC2AGM John

Dunkin Donuts coffees and mugs: KD2CCU Jolene, N2LEN Lenny, KC2AGM John

Valkin Car Wash Tickets: KC2PWO Patti Mario's \$25 gift card : AC2DK Preston

\$25 gift card from Noecker's: AC2DK Preston

\$50 gift card Kaaterskill Farm Natural Store House: KC2PWO Patti

Black and Decker Drill and Flashlight: KA2PET Jim

\$20 gift card to the White Stone Cafe: WA2UET Stan and MaryAnn

Christmas Wreath: AC2JM Jim **Holiday Snowman candy holder**: N2FN Cliff (AKA Cliffy, Kippy, NAH... CUP-CAKE)

Again thank you all, YOU MADE THIS HAM FEAST A REAL CELEBRATION, THANK YOU

GET WELL WISHES TO PETE AVERY WHO IS NOT FEELING WELL AND COULD NOT ATTEND



My Friend Scott K2CK and I went to the ARRL Headquarters the other day, and took a Very nice tour of the place, and we also visited the W1AW Radio Station. Wow what a nice place to visit, if anyone locally has not gone yet, do it Soon. :)

We also made a side trip to Cabelas, which is only a 15 minute drive from ARRL HQ. It was less than 2.5 hours from Albany. Happy New Year to all. :)

73 K2HAT Lee Hatfield Jr





Rip's Report — Rip Van Winkle Amateur Radio Society

January 2013

Items for sale de K2WG

 Two Decibel UHF base station antennas. 20 years old but have not been in use since 2002. Exact model no longer manufactured but similar to current model ASP-705K 10 dB gain, 450-470, 500 watts, N female connector. Asking \$250.00 each or \$400.00 for both.

Contact: wayneg1231@fairpoint.net Phone: 392-5704

PROFESSIONAL INSURED TOWER CLIMBER DISCOUNT RATES FOR HAMS ANTENNAS - FEED LINES INSTALLED & REMOVED CALL ARNIE CAVALLARO 518-965-9299

Serving Greene and Columbia Counties Visit NYAIR.net

Secure Wireless Broadband Internet

Trade/Sale/In Search Of

I have some 'used condition' amateur rig's I purchased in the past 'new' eg. -1 Alinco DR-605 2/440 mtr fm dual band'r, 6 mtr fm mono band'r, 2 mtr fm mono band'r some 'cb' rig's (am), 1 is a ssb/am. These rig's either DO or Do Not function! Mostly all are easy/cheap 'radio repair' issues eg. internal 'fusing' maybe final or a digital led 'quirk' whatever! My Quest is to swap/ trade (barter?) whatever it 'takes from my 'rig collection' to acquire a simple mono mode cw or better if (Lucky:-) cw/ssb 2 MTR rig. Not qrpp but qrp 5w or better. This can be Any 'working' stable rig, transverter, completer kit rig, (the mfj-2mtr is an example). If Anyone is Interested in 'trade' or trade/cash 'barter' I am open ears. :-) I've had much 2 mtr fun with fm now to go on with cw, and/or ssb. :-) -ke2eb George H. Call West Coxsackie, NY 518-731-9854 bubbycall@yahoo.com

48 VOLT SUPPLY

I have a 48 volt, 16 amp HEAVY duty power supply in need of a home. 220 or 110 primary, can be used for partsheavy duty diodes, chokes, capacitors or would charge a good battery bank. "Free to a good home". Contact wb2tcv@mhcable.com

Reminder from: TARA-N2TY Yahoo! Group

T.N.T. TRADER NET

Date: Thursday September 29, 2011 Time: 8:00 pm - 10:00 pm Repeats: This event repeats every week. Next reminder: The next reminder for this event will be sent in 1 day, 12 hours, 4 minutes. Location: TARA REPEATER SYSTEM:

Location: TARA REPEATER SYSTEM: 145.17/R & 447.075/R

Notes: This is a reminder for our weekly TARA - T.N.T. Trader Net which dedicated towards buying, selling or trading your amateur related items. All are welcome to come join us at 9:00 PM on the TARA repeater system 145.17/R & 447.075/R, plus Echolink #1774 or IRLP #4151.

Get reminders on your mobile, Yahoo! Messenger, and email. Edit reminder options

I have about 16 -120 volt pan cake fans plus protective guards if you know of anyone that needs one and 2-12volt 6watt.

10-- 10 watt fans----- \$4.00 @ 1--12 watt------\$5.00 @ 3-- 20 watt-----\$5.00 @ 2-14 watt------\$\$5.00

\$5.00 for the 12 volt fans @

Contact Ron, WA2UYY wa2uyy@aol.com

If your ad is no longer valid please let me know.

FOR SALE

For the news letter

Anyone interested it this package.

MFJ 962 tuner Ten-Tek HF rig Forty foot crank up tower CDR rotor & cable Coax cable Tri Beam Ant

You have to take it down Price total-----\$550.00

Wa2uyy Ron Coons Sr. 518-945-3731

I have a new recently purchased in box, never used: KT 100 auto tuner. This tuner is for Kenwood 'newer' rig's via antenna connection.

I Would like to swap/exchange either or auto tuner with SO239 connectors, or else trade this tuner for a HT or mobile 2, or 2/440 FM rig of compatible cost. This KT-100 was \$199.99 s+h added. This antenna Tuner is Kenwood Only!

I purchased this tuner for a Kenwood TS440S..Not knowing it was not adaptable, for easy operation. I 'decided' I did not wish to pursue 're inventing' any other recourse in making tuner work for my TS440S. So.. I now wish to 'trade' this new KT-100 tuner, as it isn't 'needed' at this time for my personal usage. If this is acceptable for listing with our club rvwars, I'd like to recommend this item for possible 'trade/exchange' resource. thank you. vy 73!-ke2eb george call. 518-731-9854