Published by the Rip Van Winkle Amateur Radio Society, Inc.

Rip's Report

May 2011

Happy Birthday

Wayne-K2WG
Martha-KC2MDY
Mary-KC2SAG
Philip-KC2YBJ
Christine-KC2YKX

Our 2 meter repeater is working great! Please feel free to use it. Try the 449.925 but our 224.280 is temporarily off the air. No one uses the 450MHz or the 220MHz repeaters so we don't know the coverage. If you use them give us a report…

2012 dues are $25.00 per individual $30.00 for family $5.00 for students and active Military are free.

You Can Pay Your 2012 Dues Anytime!

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

2012 DUES ARE NOW PAYABLE!

RIP VAN WINKLE AMATEUR RADIO SOCIETY, INC. Est. 1951

GOD BLESS AMERICA

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

MARK YOUR CALENDAR

Regular Meeting
May 16
7:00 PM
Noecker
"Club House"
Talk-in 147.21

MEETING MAY 16
PLANS FOR FIELD DAY
SPRING IS HERE!!!

Message from Ann
April 6, 2011

David has lost the battle. He died this morning at 8:12am. His body fought all night but he never regained his strength.

Thank you so very much to all of you who loved him and prayed for him. I cannot tell you how much it meant to him and to me. He spoke often of how thankful he was for all of your wonderful support.

Thank you as well to the wonderful CaringBridge.

DAVID LYALL CLAPPER
May 27, 1935 - April 6, 2011

Rest in peace, David! God be with you!

RVWARS WEB PAGE

Dave, WA2FTI has our RVW web page www.rvwars.com updated and looking great. Thanks Dave.

VE SESSION

There will be a VE session on Tuesday May 17 at 6:30 PM at our club house, Noecker66 in Hudson. Anyone that is interested in taking the exam is welcome. All classes of license exams will be given.

The ARRL VEC Exam Fee for 2011 is $15.00 (for one attempt at all three license elements).

If a candidate fails an element at an exam session and wants to re-test for the same element, an additional fee will be required.

All interested are welcome!

I NEED NEWS!

Have a story to share? An experience to relate? Some gear to review? Some gear to sell. A technical tip to dispense? Write it up, add a couple of appropriate photographs and send them off to *Rip's Report* wa2uet@taconic.net. Hams throughout the Columbia-Greene area will thank you, and so will the Editor!

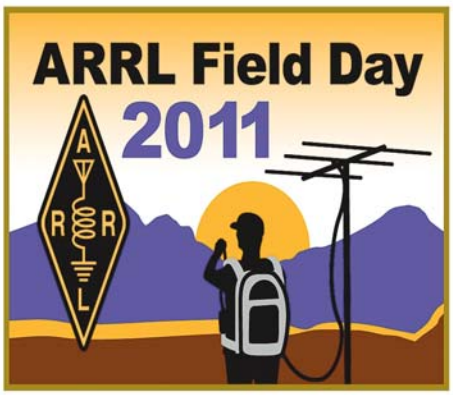
It's nice to be important, But it's more important to be nice!

RVW WORK PARTY

The road is finally cleared. Carl is going to go up soon and check the receive problem on the repeater.

The grounds look good, now we will wait for the work to begin on the Cell Tower. I am currently waiting for a meeting or document in the mail to set up and sign an agreement between Homeland Towers and RVWARS.

We will work on getting the 450MHz and the 2 meter repeaters working top notch again. When that is done we will get the 220 repeater back on line for ARES/RACES use.



www.arrl.org

ARRL Field Day Overview

ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. Each year over 35,000 amateurs gather with their clubs, friends or simply by themselves to operate.

ARRL Field Day is not a fully adjudicated contest, which explains much of its popularity. It is a time where many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, most groups use the opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to local elected community leaders, key individuals with the organizations that Amateur Radio might serve in an emergency, as well as the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

Join us at the Claverack Town Park on June 25-26 for our activities. Everyone is welcome!

HOMELAND TOWER PROJECT

From Homeland April 15, 2011:
Hi Stan,

We received our building permit and are going through the normal process of preparing.

It will take some time and I will keep you posted as we go through the process.

I should know more by end of month.
Thanks.

Upcoming Events

Monday, May 2 — 7:00 p.m.
On Monday, May 2, the Columbia County ARES/RACES Meeting will be held at the Columbia County EOC in Greenport. Among topics to be discussed are combining the Columbia County and Greene County Emergency Nets and the Hospital Drill which will take place on May 10. All are welcome. Talk-in will be on 147.21.
73,
Tom, WE2G, DRO, Columbia County

Monday, May 16 — 7:00 p.m.
RVWARS Meeting:
Noecker66 Clubhouse, Rt. 66 & Graham Ave. Hudson

Weekly Nets

EVERY TUESDAY at 7:00 p.m.
Informal Roundtable on the 147.210 repeater ALL are welcome.
3rd THURSDAY at 8:00 p.m.
ARES/RACES EmergencyTraining Net: 147.21 Repeater

Repeaters

147.210 no PL tone
449.925 no PL tone
224.280– no tone and temporarily off line.

Vital Statistics

President — Tom Gutierrez N2NZD
Vice President — Mike Alecksynas N2JVE
Secretary — Tom Cody WE2G
Treasurer — Stan Engel WA2UET
Historian — Stan Engel WA2UET
Safety Officer — Stan Engel WA2UET
Repeaters — 147.21 224.280 449.925
Club Call — K2RVW
Club Special Event Call—WD2K
Web Page — http://www.rvwars.com
NEWS E-mail — wa2uet@taconic.net
Yahoo Group
http://groups.yahoo.com/group/RVWARS/

RVWARS Meeting 4/18/2010

- Meeting called to order at 7:10pm by Secretary, WE2G. Attendance 17
- Secretary's report read. Motion to accept by KC2AGM, second by N7CXJ.
- Treasurer's report Checking $1157.31, Savings $2010.40, Total $3167.71.
- Introductions
- **Committees**

ARES/RACES

- MS Walk will be May 1 at Lake Taghkanic. Hospital drill will be May 10. No report from Greene County.

Repeater

- Manny's secretary contacted Stan and the building permit has been issued. Stan visited repeater site. The antenna looked fine. He isn't sure what is wrong with the receiver. Carl, WB2TCV is going to help out with the problem.

Old Business

- Letter to Rep. Gibson was taken to his office in Kinderhook. We invited him to Field Day, but he declined.

Education

- WA2UET and WE2G will teach on April 19, KC2YKQ on April 26 and May 3.
  WE2G will run CW net before 4/19 class.

New Business

- W2CSQ spoke about David, WA2FTI. He wanted to thank everyone for their condolences on behalf of Ann, WA2KCU and himself. Stan is looking for stories on David for the newsletter. AA2Y has remembrances of Christmas performances, KC2AGM has photos. Suggestion to use WA2FTI callsign for Field Day. Discussed.

Field Day

- KC2YKM needs people and trucks to move equipment, laptops, rigs. He will contact WB2UEB about the beam. Barry, WA2KLP, is handling logging software.

50-50

- Won by KC2YKR.
- Motion to adjourn WA2KLP Second W2CSQ.
- Adjourned 7:27pm .

Respectfully Submitted,

Thomas J Cody
WE2G, Secretary

FIELD DAY RAFFLE

Rip Van Winkle Amateur Radio Society, Inc.

First Prize—24" Samsung LED Full HDTV/Monitor
Second prize-ARRL Repeater Directory

Drawing Saturday 6/25Noon at the FD Site
Tickets—$3.00 eachTickets available at the meetings and at FieldDay Site.
Send SASE to RVWARS c/o Stan Engel
PO Box 153Ghent, NY 12075
Make Checks Payable to RVWARS

Shelly's Bugs!!!

The information I have was gleaned from various books. I can not vouch for the truth of all the details but I offer them to you as I got them.

I became interested in "bugs" at one of our field days. I had a Heathkit tube keyer. I hooked it up and bingo- I could not operate since nothing was grounded and RF got into the keyer and left it in the key down position. I vowed never to depend on an automatic keyer again. I had a friend, Joe Johnson, SK, W2DW who operated a bug and I loved the simplicity of it, the physical movement necessary to produce the ole' dots and dashes. It was much faster than the straight key which was my other alternative. Since those days, automatic keyers have progressed I am sure, but the bug is still for me.

Where did the word "bug" come from? Again from the source I read it stated that in the early 1900's a poor telegraph operator was called a "bug." This does not make sense to me but what the heck. Some operators bought bugs from vibroplex (still can today) and competitors and sent without much practice. The result was poor sending and the key became know as the bug.

It is not hard to master but takes practice, of course, what doesn't? You can almost always tell when a bug is operating rather than a keyer since it is distinctive in most hands. What I am saying is that many operators have fists which range from super to gross. Run on dots and dashes is like run on sentences with no spaces between anything and inconsistent length of dots and dashes. Listen around and see if you can find them.

This bug is the Vibroplex J-36. The label says Signal Corps-U.S. Army. The serial number is 1673. It has a contract date of June 27, 1942. I am not sure what that means since these were manufactured from 1941-1945. It might mean that this bug was from a contract dated as I mentioned. It is identical to the lightning bug.

This pic is of the Lionel J-36. They were manufactured between 1941-1946. Vobroplex could not meet the demand so they licensed Lionel to make them using the lightning bug design. This one's serial number is 20213. This may seem high but today's vibroplexs number in the hundreds of thousands. They are rare to find with the original plastic label as they curl from the heat or sun.

This is my pride and joy. A word about any Mac-Key. If you are lucky enough to find a good one for under a $100 buy it. While the value can fluctuate depending on the demand etc. they can gain in value. In the late 1970's-early 1980's I bought a Mac-Key with the serial number of 579. It was an early model and its serial number was relevant to cw user. I bid at an auction and paid either 25 or 30 dollars for it. I think it sold originally for around 15-20 dollars. I sold it on E-bay about 7to 10 years ago for $550. Not a bad deal. It was a mottled green plasticized base over metal-it you see one in good shape buy it. Make sure it has all the original parts including screws or its value drops.

At the Ballston Spa ham fest some guy was trying to sell a Mac-Key like the one pictured here for $300. It was a mess-stay away from it.

I bought mine for $300 about 10 years ago. It probably has not gained much if at all in value.

Now about mine pictured: it is a good key but not as smooth as a new vibroplex. However, it is smooth enough to send good cw.

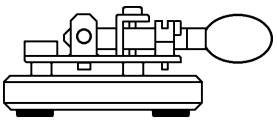
Ted McElroy is the world's best code copier. He is a silent key but I think still holds the world's record. He set the record at 75.2 wpm. Wow-holy cow. He set the record in a contest in 1939.

My key was manufactured in 1936 and is the last model with cast lettering under the base. The base translated says: Patent applied for in 1934. Semi-automatic telegraph and radio code transmitter. Mac-Key manufactured, adjusted, and guaranteed by T.R. McElroy..."

It is characterized by an L shaped bar which connects and supports the dot and dash contacts. It has a T shaped bar on the top so you could easily pick it up and carry it. The serial number is 7610.

There are reference books to be found and if you can not find them on the web, email me and I can give you a few names.

Shelly-AA2Y email is AA2Y@aol.com



I just want to thank the members that have sent me some great articles for the Newsletter. PLEASE keep them coming. I believe this is the type of content that readers are interested in.

QNZ de K2WG….

Public service. It's part of what we do. It's part of what part 97 says that we are about. It's why most of our frequencies remain unscathed with all of the rebanding and auctioning going on. It's why many of us got into the hobby in the first place. The season is upon us when we will be asked to assist with communications for various walk-a-thons, bike-a-thons, triathlons and the like. So, please step up to the plate and volunteer your time, talent and equipment. If you can't deploy to the event itself, then make yourself available at your home station for traffic relays or phone calls to public safety agencies. Some of the areas that these events cover are still not adequately serviced by cell phone providers.

We should always be prepared to operate beyond our 'comfort' zone if necessary. A short list might include back-up power sources, back-up radios and antennas, provisions to last the first 72 hours of a disaster and some type of 'go kit' for deployment. Remember we can't be effective on a deployment while we are worrying about what's going on at home with our families. Make sure the home front is safe and secure before you even think about deploying. Some deployments will allow the use of vehicle mounted radios and antennas while others will require HT's, mag mount antennas and lots of extra batteries. Dry cell batteries do have a shelf life. Follow the manufacturer's recommendations. Use extreme caution when using liquid filled vehicle batteries. Acid is corrosive. Hydrogen gas is produced during charging. A direct short across the terminals could cause a fire. Caution is also needed when using portable generators but we have discussed that previously.

Public service deployments and activities like Field Day help us to test our preparedness and abilities to operate away from home. We may think that we are ready but the true test of that readiness only comes with an actual field deployment of some type. Let's keep practicing so we are ready for the 'real thing'.

Alex KC2RDK and I had a chance to test our mettle during April. We were part of the volunteer team of approximately 500 Amateur Radio Operators that assisted with the communications for the Boston Marathon. Twenty six miles, 27,000 plus runners and at least 7,000 volunteer support personnel. The Incident Action Plan for this event is contained in several three inch thick binders. The communication plan is just one part of that IAP. Alex was assigned to 'shadow' one of the medical team directors at the finish line and I mean that was right AT the finish line. My job was to provide communications for one of thirty vans and buses that continually swept the route to pick up exhausted or injured runners and transport them to medical aid staging areas. Each bus was staffed with one or two paramedics and some emergency medical supplies. Obviously if a runner was seriously injured or had a medical emergency the NCS was advised to respond the appropriate EMS agency.

Large or small, these public service events provide us with opportunities to test our preparedness and field communication abilities and fulfill part of our responsibility to use our frequencies for the public good. Are you prepared to do your part?

73 for now…. AR …. SK …. de K2WG

For Sale de K2WG:

$50.00 each

HTX-242 (Radio Shack) 2 meter mobile transceiver
- 45 watts/10 watts
- Mobile mounting bracket
- Power-Pole connections on dou ble fused 12 volt DC line
- DTMF microphone
- Good condition

HTX-202 (Radio Shack) 2 meter HT
- Alkaline battery case only
- Good condition

GP-68 (Motorola) UHF hand held
- Drop in charger
- Head set

FT-11R (Yaesu) VHF hand held
- Drop in charger
- 2 battery pacs

Contact Wayne at wayneg1231@fairpoint.net or 518-610-1929

NEVER FORGET WHAT A MAN SAYS TO YOU WHEN HE IS ANGRY

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

GREENE COUNTY ARES/RACES

Greene County ARES & RACES AND SKYWARN TRAINING!
On Wednesday evening April 27th 2011 the Greene County ARES & RACES group had their monthly meeting.
The meeting agenda included.
1: Introduction to D-STAR Promotional Video (How can D-STAR assist in Emergency Applications)
2: Discussion about the progress of the 147.090 Repair Project
3: Power point presentation about "Building a Portable Go Box" (Brainstorming session and discussion about the best choice of equipment)
If you are interested in taking SKYWARN TRAINING:
5/23/11 1900-2100 GREENE COUNTY CAIRO, NY GREENE COUNTY EMERGENCY OPERATIONS AND TRAINING CENTER, 25 VOLUNTEER DR., CAIRO, NY 12413 ROOM 126

GCARC News

The Greene County Amateur Radio Club Has moved it's meetings back to the Cairo Hose Company and the Day has been changed to the 4th Wednesday of each month. The May meeting will start at the Hose co. at 1830 we will then get pizza and travel to our field day site to plan for field day.

.....73.....kc2usw

GCARC Statistics

Claude Kearney, WT2C President
David M. Rivenburgh, KC2YBK Vice President
James A. Carr, KC2USW Treasurer

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

TUBES LARGE AND SMALL

By: Carl J. Verderber WA2UJX
April 23, 2011

I thought you might like to see the differences between the largest and the smallest tubes at WA2UJX Station. In the picture center is an EIMAC 4-1000A RF power tetrode. I use it in a 160 M RF amplifier. Its filament is equivalent to a 200 Watt light bulb and the tube can dissipate 1000 Watts of converted power to heat. In a proper circuit configuration, this tube can produce 3500 Watts output. Most tubes in receivers, amps and old TV's use +350 VDC on the plate of the tube. The 4-1000A can use up to +6000 VDC on the plate.

The tube on the left is a sub-miniature "pencil" tube used in portable receivers in the 1960s. These tubes, made by Raytheon, were competing with the early transistor sets. We know who won and the pencil tubes were phased out. They used very little filament and plate operating power.

The tube on the right is an RCA 6DS4 used in the tuners of 1960s and 1970s TV sets. It has a metal envelope to shield the internal elements from any outside electrical noise. These tubes were very effective when used in VHF and UHF applications. Like the pencil tube, the 6DS4 uses extremely small amounts of filament and plate power but much more than a transistor would use.

I wanted to show size differences of some tubes – and of course, tubes do exist that are very much bigger than the 4-1000A and I believe there are examples of micro size tubes (although they are rare and mostly prototypes). The size of my 3CX-3000A7 RF power triode (not shown) is 1/3 the size of the 4-1000A tube but is 3 times more powerful. It is smaller because it is packaged in a ceramic envelope and has many cooling fins that effectively take care of the heat. While tube technology is phasing out for small low power uses, the large RF power tube technology will continue to be used. END

The CHAPIN FAMILY Ham Shack Construction Project

Hello,
This is Catherine Chapin (KC2YKO). I attached some photos of me and my family working on our own Ham Shack. We

are hoping we can finish it by the summer and be able to make contacts ASAP. My oldest brother Matt is not in the pictures, but my Dad, KC2YKQ, my youngest brother Timothy, KC2YKR, and myself are in the pictures. :)

There are not that many photos but its just the start. I will try and send more photos when we finish the shack for the next newsletter.
73,
Catherine, KC2YKO

PACKET RADIO—TRY IT!

If anyone is interested in trying a bit of PACKET radio you should know that there are two BBS's on 145.030 that are always online. They are K2WG-1 and K2RVW-1. Just type "C" and one of the above stations and you should connect. Once connected type "H" for the rest of the commands. Type a "B" to log off.

The RVW "By-Laws, Dues, D" has been amended to read:

Any unlicensed member of a RVWARS sponsored License Class who successfully passes the VE exam shall be awarded a free membership in RVWARS for the balance of the current year.

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

David Lyall Clapper Obituary

Published: Thursday, April 7, 2011 2:07 AM EDT David Lyall Clapper, 75, of Cairo, died Wednesday, April 6, 2011 at Columbia Memorial Hospital.

Born May 25, 1935 in Hudson, he was the son of the late Charles Henry Clapper and Lillian Bryant Decker Clapper.

He graduated from Catskill High School and Ithaca College.

Mr. Clapper was a music teacher for the Catskill Central School District and the Hudson City School District.

David was a pipe organ builder and a partner in the Rosenberry & Clapper Organ Company. He was a church organist for most of his life having played in the First Presbyterian Church in Hudson, St. John the Evangelist Episcopal Church in Stockport, St. Barnabas Church in Stottville, Trinity Episcopal Church in Claverack, and St. Luke's Episcopal Church in Catskill.

He retired from the US Army after serving six years; was a "printers devil" at the Catskill Daily Mail, having learned the art of setting hand type; was a model railroader and had articles and photos of his Hudson Garden Railroad published in national magazines, and was the office manager for the Bass Harbor Campground in Bass Harbor, Maine.

David was past president of the Friends of the First Presbyterian Church in Hudson, past dean of the American Guild of Organists, Hudson and Catskill Chapter, past president of the Rip Van Winkle Amateur Radio Society, and past treasurer of the Catskill 3500 Club.

He was also a member of the Coxsackie Athens
Community Band, Greene County Amateur Radio Society, RACES/ARES-Columbia County, Hudson Valley Choral Society, Cairo Historical Society, Greene County Historical Society, Columbia County Historical Society, Mountaintop Historical Society, Hudson Opera House, American Amateur Press Association, the Olana Partnership, All Arts Matter -Greenville, Greene County Retired Teacher's Association, Music Educators National Conference, and NY State School Music Association.

David is survived by his wife, Ann L. Clapper of Cairo; his son, Raymond Clapper of North Carolina; his granddaughter, Angel Perez (Miguel) of Texas, and his great-granddaughter, Sophia Perez of Texas. He was predeceased by his daughter, Karen Clapper.

Arrangements are with the Bates & Anderson - Redmond & Keeler Funeral Home, 110 Green St., Hudson.

Thoughts from Bob, KG6AF

I just wanted to pass along a few thoughts to your newsletter readers on the passing of Dave Clapper, WA2FTI.

Back in 1966, when I was 14 years old and a newly-minted Novice living in Hudson, I tried desperately to make contacts with my modest rig and meager CW skills. I spent maybe a month filling up my logbook with unanswered CQ entries, and was becoming increasingly convinced that I would never make a contact. One day at school, my 8th-grade music teacher, Mr. Clapper, came up to me in the middle of class and said, "I hear you're trying to make a contact." Taken aback, I said that, yes, I was. He named a date and time, I gave him my 80 - meter frequency (I had only one crystal at the time) and the deal was sealed.

When the appointed time arrived, I heard this extremely loud CW signal- - Dave lived in Hudson at the time and we couldn't have been more than a couple miles apart--calling me. My Hallicrafters S-120 receiver was practically hopping up and down on the desk in time with the dits and dahs. I answered his call with the slowest, shakiest fist that ever tapped out code on a straight key, and we were off. I don't remember what we said or how long the QSO was. I do remember that I was both extremely nervous and absolutely exhilarated. It was, in a word, great.

Somehow the fact that I'd had one contact made it easier to make others--a few at first, then more, until somehow I became a CW operator.

Going out of your way to help someone get their first contact might seem like a small matter in the great scheme of things, but it was a big deal to me. In time I realized that this is what good hams do: if someone's having trouble getting an antenna up, or hooking up a new rig, or figuring out a mode they haven't tried before, you do what you can for them. So in that regard, Dave wasn't just someone who helped me get my first contact; he was also an excellent role model.

I want to express my deepest condolences to Dave's wife Ann and the rest of his family, and to his friends.

Bob Perlman, KG6AF

Adding Power & CTCSS Encoder to FT-221 All Mode 2 Meter

April 23, 2011
Carl J. Verderber WA2UJX

We all have favorite rigs. Some are new, others old. Most of the older rigs have deficiencies like missing functional features, receiver sensitivity and transmitter power. But we still like them and want to use them. If we look hard enough, we can find answers to the deficiencies our older rigs have.

Case in point – I want to use the Yaesu FT-221 2 Meter All Mode transceiver all the time but there are lots of problems to overcome. The first problem is its receive sensitivity. It has a very poor receiver – not very sensitive. The second is its power output. FM mode output is 10 Watts, SSB mode output is 12 Watts, and AM mode output is about 2.5 Watts. The third problem - it is missing the "Continuous Tone Coded Squelch System" or "PL tones" (CTCSS). Without these CTCSS tones, closed repeaters will not open for my use and even if I had tones, the power wouldn't be sufficient to reach the repeater with full quieting.

I was able to correct the first and second problems by purchasing a used Mirage B-108G Bi-Amp. The amp is linear and as such, will operate in AM/FM/SSB modes effectively. The amp also has a low noise receive RF preamp which brings my receive sensitivity up to modern levels. Power output is from 40 to 80 watts out and that level of power is perfect for the area I live in.

The third problem (CTCSS tones) was satisfied by contacting Communications Specialists Co. of California. They still sell CTCSS tone encoder boards and packaged tone encoder systems. I purchased a TE-32 Multi-Tone CTCSS Encoder for about $60.00. Installation requires connecting the cables to the +12 V DC power, and its audio cable connects to the FM phase modulator located on the FT-221's mike board. Comm. Specialists also have a $30.00 tone encoder board that can fit into any 2 Meter rig but it has miniature DIP switches to select the tone frequency. I didn't use that board because I needed outboard selection of tones.

As you can see from the picture, the package looks OK and functions well. The Mirage Bi-Linear Amp and the CTCSS Encoder sit atop the FT-221. Now my favorite 2 Meter rig is more useable and more functional after spending a small amount of time and money. END

EAST GREENBUSH
8TH ANNUAL HAMFEST
Saturday, May 14
68 Phillips Road, East Greenbush
8 AM to 1 PM
Admission $6
Info: www.w2egb.org

FIELD DAY RAFFLE 2011

FIRST PRIZE: 24" LED HDTV/MONITOR
MODEL-FX2490HD
SECOND PRIZE: ARRL REPEATER HANDBOOK
Drawing on Saturday June 25 at noon.
Tickets are $3.00 each
Tickets are available at meetings and at Field Day before the drawing. They are also available by mail. Please make checks payable to RVWARS c/o Stan Engel, PO Box 153, Ghent, NY 12075
Please include a SASE if you want the stubs.

The Curtis Keyer Chip

Brad Mitchell, N8YG
n8yg@arrl.net

Modern transceivers incorporate many features that not long ago were considered accessories: CW keyers and SWR meters come to mind. John Curtis, K6KU, created an electronic iambic -keyer circuit and subsequently offered an IC chip to do the job. He revolutionized keying, as we know it.

Born in Bradford, Pennsylvania in 1930, John Curtis became the typical boyhood ham. He and several high school friends got licenses at the same time, then built and operated Amateur Radio equipment. Then other things — work and college — came along and John did not attain the Extra Class license until later in life. He decided to get a feel for the requirements of the Extra Class test by undertaking a circuit design project. John built a keyer circuit and learned about digital electronics.

His prototype worked. In fact it worked quite well, according to his ham radio friends. They convinced him to produce keyers. With prototype in hand he put an ad in Ham Radio Magazine announcing the Curtis Electronic Devices EK-38. The -38 was John's age — a product numbering scheme that would continue. Ham Radio reported there was a slight problem with the ad. The name Curtis Electronic Devices was too long for the small ad. So with a swipe of an eraser, Curtis Electronic Devices became Curtis Electro Devices.

John spent many hours preparing to produce the EK-38 and keep his normal day job as well. But eventually he formed his own business. The EK-38 was a great keyer, but it only had dit memory, and lacked weight control. Many hams were interested in weight control because various transmitters had different keying characteristics. In 1969 he introduced EK-39. It included dah memory as well as weight control.

Scratch Memory

What else could a ham want from a keyer besides dit and dah memory weighting? Memory of course. In the late '60s, memory? Yes, memory. The EK-39 was modified to include a special-order memory feature. But the technology was just emerging for read-only-memory (ROM). In fact the first EK-39M keyers were programmed with "SC-ROM." Hams who ordered his keyer might have been surprised to know that Curtis used a pin to scratch their call signs into a ROM chip that was positioned under his microscope — hence the name SC-ROM. A programmable diode matrix and ROM soon replaced this tedious process.

Curtis' electronic keyer business soon had a loyal following. Quite a few hams followed Curtis' every move and would order any new keyer he created. More success followed. The EK-402 had a 20-character programmable memory. It sold for $289.95 in 1971.

Up to this point, Curtis could have been just another keyer designer but what happened next was truly revolutionary. John had established a lot of contacts while working at Signetics in the '60s. These paid off for him when he decided that a keyer circuit could be implemented on a chip. He started with not one design, but two. The 8043 and the 8044 were announced at the same time. The 8043 was designed as a completely custom integrated circuit in CMOS. At the same time, International Microcircuits was looking for a chip in which to test their gate array technology. The first chip down the line was the 8044, produced for Curtis. The 8043 worked first try. It was limited to dit memory, and sold for $7.95 in quantities of 50 or more in 1973. The 8044 also worked right off the bat. It offered dah memory in addition and sold for $24.95 in 1975. The 8044M was introduced in 1980. M stood for meter. A meter could be hooked up to a pin of the 8044M to indicate sending speed.

In 1981 Curtis found that many people liked the mode B keying characteristics of Ten-Tec, Heath, Nye, and Accu-keyers. Mode B simply added an extra dit or dah when the operator stopped sending — depending on which was sent last. If a dit was sent last, an extra dah would be sent. If a dah were sent last, a dit followed. John's keyers did not do that, so he added the feature in the 8044B (according to John, Mode B was actually a design error by an unnamed company). Curtis introduced several keyers incorporating his new full-featured ICs. The first was the EK430 incorporating the 8043 chip. John also introduced a fully integrated keyboard chip called the 8045.

Problem Across the Pond

Finally in June 1982 Curtis Electro Devices produced its last keyer, the Lil' Bugger. Offered as the K5 or K5B, it incorporated the 8044 or the 8044B chip, respectively. It sold for $39.95 and was quite popular. The company had relatively few manufacturing problems. John tried overseas production of his circuit boards and encountered quality control problems. In England where the keyer was quite popular, the name Lil' Bugger wasn't acceptable, and hams there asked John to ship the unit in unmarked boxes.

The K5/K5B was the last Curtis keyer. But wait, there was another Curtis chip — the one that probably was best known — the 8044ABM. This final keyer chip was introduced in the spring of 1986. It incorporated selectable A or B modes and the speed meter. This truly was a top of the line chip, and became an industry standard. However, microcontrollers debuted in the '80s and Curtis chips were no longer in demand. John stopped selling them. MFJ purchased the 8044 line and now offers several Curtis keyers in its product line. Curtis ceased operations April 1, 2000.

This article was originally published February 5, 2002.

Brad Mitchell, N8YG, an ARRL member, and co-inventor Gary Diana, N2JGU, started Embedded Research Co and developed the TiCK keyer-chip line. Mitchell studied the Curtis Electro Devices products to learn as much as possible about their design and the history of iambic modes A and B before creating his own chips. Mitchell is no longer associated with Embedded Research Co. He can be reached at 7 Mission Hill Dr, Brockport, NY 14420-1558.

Introduction to D-STAR

By: Len Signoretti N2LEN

Recently, the Repeater Builders Yahoo Internet groups have been buzzing with hams talking about D-STAR.

What does "D-STAR" stand for?

The D-STAR stands for Digital Smart Technologies for Amateur Radio. It is an open standard digital communication protocol established by JARL. Japan Amateur Radio League.

It is a new ham radio system which offers digital voice and data communication. It connects repeater sites over microwave links and the Internet and forms a wide area ham radio network. The DSTAR system provides a new capability and functionality to the ham radio world and increases the efficiency of emergency communications.

Well Simply Put… It's kinda like Echolink, IRLP, APRS, GPS, SMART PHONE, all in one. PLUS MUCH MORE!

Have you ever thought about if you could access the Internet from ham radios?

Or have you ever thought if you could communicate with a friend in another city or country using a simple handy radio?

Or how about wanting to send a simple text message to someone you know on the radio.

Or know the call sign of who is on the air right now?

The D-STAR system is such a magical system; you can easily achieve these functions without using a Tricky gadget or complicated stuff. This diagram below shows the features of what a D-STAR repeater would offer its users.

Application #1: (DV MODE)

Your transmissions will be crisp and clear….Because it's DIGITAL…

Everyone will sound the same! No more, He's too loud, or Please speak up stuff…

Application #2 (DV MODE)

You can send a short Data Message, Complete callsign identification will be seen you your D-STAR radio. Know who is on the air right now!

Application #3 (DV MODE)

Complete GPS tracking…If you have a GPS receiver with a D-STAR radio you can send you're Current Position to the person you are speaking with.

Application #4 (DD MODE)

Internet Access! Plain and simple…If you have an Icom ID-1, connect it to a PC Computer or Laptop, then Connect to the D-STAR repeater, you can connect to the internet and browse websites and check E-mail.

Application #5 (DD MODE)

You can transmit up to 5 pictures and watch real time images from a remote location!

· What can I do with the D-STAR radio?

4.8kbps digital voice (DV) mode and 128kbps data * (DD) mode communications are available. When using DD mode with a PC and the D-STAR radio, high speed data communication is possible. *DD mode is available with ID-1 only.

· Can I send data with a voice transmision?

Yes, you can. In DV mode operation only, you can simultaneously send up to 950bps of data, such as call sign, short data message or GPS position with a voice transmission.

· Can I make a call with foreign countries?

Yes, you can. The Internet gateway allows you to relay your call to a remote D-STAR repeater over the Internet. The D-STAR repeater call sign and IP address must be registered to the gateway server. Some restrictions may apply based on specific country regulations.

· Can I use the D-STAR repeater without connecting to the Internet?

Yes, you can use a D-STAR repeaters a local repeater. You can also communicate with other D-STAR radios directly.

· Can I receive a call only when the call is intended for me?

Yes, you can. the call sign squelch function opens the squelch only when you call sign is received.

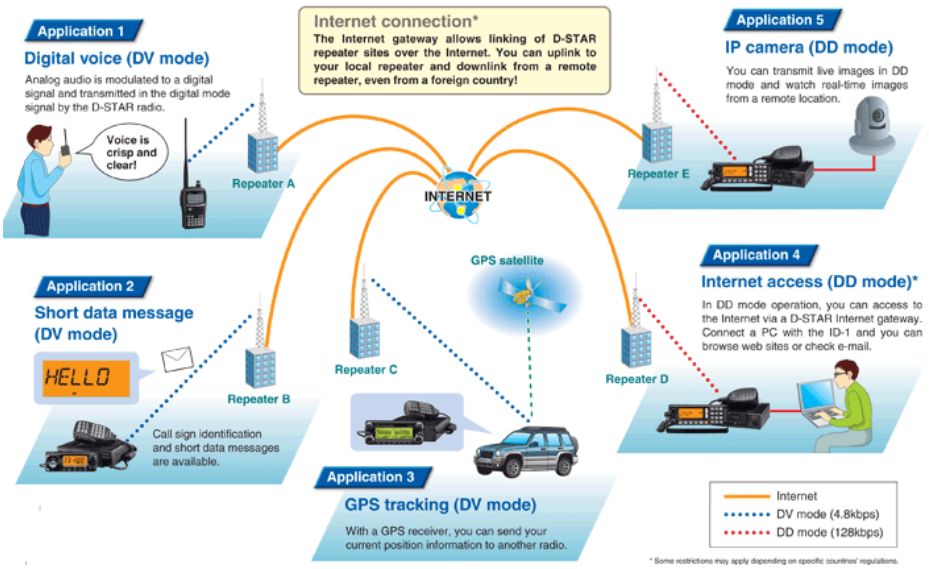
· How do I set a repeater call sign when I make a call to a desired station using a D-STAR repeater?

When you communicate with other D-STAR stations using a D-STAR repeater, it is necessary to set the repeater's call sign in RPT1/RPT2 as well as the desired station call sign and your own call sign. For example, when you make a call in the same zone (without using the Internet gateway), set the uplink repeater call sign in RPT1 and the downlink repeater call sign in RPT2. Set "CQCQCQ" for the desired station call sign, when you make a CQ call.

When you make a call in another time zone using the Internet gateway, set the uplink repeater call sign in RPT1 and the gateway call sign in RPT2. The gateway repeater has "G" setting for the8th-digit. Set "/" plus downlink repeater call sign at the desired station call sign, when you make a CQ call.

D-STAR really is a NEW fun digital mode to operate. Of course in order to operate D-STAR, you will need to purchase a D-STAR equipped radio. Almost all ICOM 2/440 radios with D-STAR built-in will also work regular analog mode. Next month, I will hopefully supply another article with the real inner working of how the system works and discuss the possibility of building a future D-STAR repeater for everyone to use!

Best 73,Len N2LEN



MS WALK 2011

Tom, N2NZD—Chris, N2PBN—Mary, KC2SAG—Jim, KC2OGK—Tom, WE2G

Today was the MS Walk at Lake Taconic. The group above and the cameraman were there to cover the route to communicate any problems along the way. It was a great sunny day! The crowd of walkers and runners seemed smaller than usual but I think that Sean's Run in Chatham was today as well and I am sure that many of the walkers were involved with that.

I took several pictures today but I left my camera on the car top and lost it. The picture above I took with my BIG camera that I seem to keep better track of.

It was an enjoyable fun morning. BIG thank you to those that helped!

There is going to be a RACES Drill at Columbia Memorial Hospital on May 10 at 11:00 AM. If anyone can help please contact Tom, WE2G at "tcody@mhcable.com"