
WAVES

Volume 22, Issue 1

January 2009

GOING HI-TECH

The time has come for CARC Waves, the monthly newsletter, to join the computer age. This is being done for several reasons.

The first is cost to produce and mail 200 copies of the newsletter.

The second is to make it available when someone wants to read back issues.

Third, and probably most important, Charlie Curle, AD4F, has retired from producing it, and I am not inclined to be a printer either.

I will provide a printed copy to a FEW folks that don't have access to the internet.

I have placed the December Waves on the CARC web site at <http://www.w4am.org/newsletter.htm>. I will send an email each month as soon as the Waves is available to everyone for whom I have a valid email address. Currently that is about sixty of the one hundred members. I will use the same medium to tell the members about important events or changes--such as change in meeting night and location.

I have sent out one message. The one group I am having trouble with is @ARRL.COM. I hope to work that out shortly and will be working in the next couple of weeks to get the other addresses I need.

Please let me know if you cannot get the Waves from the internet. You can try it today. Contact me if you have any trouble or are not able to get it. Use

Email: ben@brtimmerman.com

Phone 423-886-1631

Mail: Ben Timmerman

1547 Pickett Road

Signal Mountain, TN, 37377

Thanks,

Ben, AC4HG

Inside this Issue

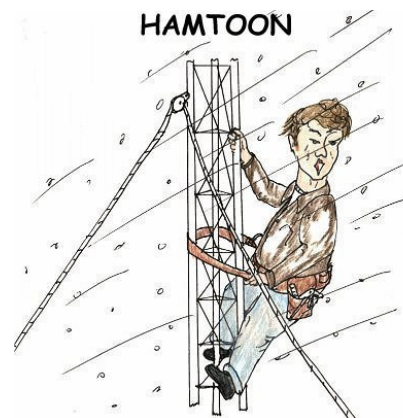
Page 2 Letter from American Red Cross

Page 3 CONGRESSIONAL COMMITTEE

Page 6 How To Solder

Page 8 Minutes

Page 9 Application



NEXT TIME, HOW ABOUT WE PUT UP
THE ANTENNA BEFORE THE SNOW
BLOWS ?



American Red Cross

Greater Chattanooga Area
Chapter

Our Mission:

*The American Red
Cross, a humanitarian
organization led by
volunteers, will provide
relief to victims of
disaster and help people
prevent, prepare for,
and respond to
emergencies.*

801 McCallie Ave.
Chattanooga, TN 37403
423.265.3455

www.chattanooga.redcross.org

December 5, 2008

Chattanooga Amateur Radio Club
PO Box 23121
Chattanooga, TN 37422-3121

Dear Mr. Bermington,

Thank you for your contribution of \$300.00 to the Greater Chattanooga Area American Red Cross. Your generosity insures the continuing care of those in need of our services.

Founded by Clara Barton in 1881, the American Red Cross is the definitive agency in disaster services. The Chattanooga chapter is in our 91st year of adhering to our mission to prevent, prepare for, and respond to emergencies. Your American Red Cross provides shelter and basic necessities to families who have lost everything in a fire or other disaster. We assist military families in crises and teach life-saving skills in CPR, first aid, and water safety. Volunteers provide comfort to nursing home residents and hospital patients. Hundreds of dedicated Red Cross Volunteers deliver these critical services not only in our partner counties and throughout our region, but represent those of us here at home during times of National catastrophes.

Your gracious gift to the Chattanooga Chapter literally keeps our doors open to serve any and all in need of our services. Please know how much your kindness is appreciated by the staff, your board and our grateful clients.

Sincerely,

Barbara Alexander
Executive Director
Greater Chattanooga Area Chapter

*Please keep this written acknowledgement of your donation for your tax record.
This donor did not receive goods or services in return for this financial gift.
And this gift is fully tax deductible to the extent allowed by law.*

Serving the people of Hamilton, Bledsoe, Grundy, Sequatchie,
Rhea, Marion, Carroosa, Dade and Walker Counties

**CONGRESSIONAL COMMITTEE MEMBERS RELEASE REPORT
LAMBASTING FCC CHAIRMAN KEVIN MARTIN**

On Tuesday, December 9, the House Committee on Energy and Commerce -- the congressional committee that oversees the Federal Communications Commission -- released its majority staff report "on the bipartisan investigation of the FCC's regulatory processes and management practices." The report -- "Deception and Distrust: The Federal Communications Commission under Chairman Kevin J. Martin" -- stated that the investigation was prompted "by allegations to the effect that [FCC] Chairman Kevin J. Martin has abused FCC procedures by manipulating or suppressing reports, data and information"

http://www.arrl.org/news/files/FCC_Report120908.pdf.

"Our investigation confirmed a number of troubling allegations raised by individuals in and outside the FCC," said Representative Bart Stupak (D-MI), Chairman of the Subcommittee on Oversight and Investigations.

"The Committee staff report details some of the most egregious abuses of power, suppression of information and manipulation of data under Chairman Martin's leadership. It is my hope that this report will serve as a roadmap for a fair, open and efficient FCC under new leadership in the next administration."

Representative John D. Dingell (D-MI), Chairman of the Committee on Energy and Commerce echoed Stupak's concerns: "Any of these findings, individually, are cause for concern. Together, the findings suggest that, in recent years, the FCC has operated in a dysfunctional manner and Commission business has suffered as a result. It is my hope that the new FCC Chairman will find this report instructive and that it will prove useful in helping the Commission avoid making the same mistakes."

The report said that "in an investigation of this nature," the Committee would usually hold hearings "to receive testimony from witnesses and to further examine the issues." But due to what the Committee called "the climate of fear that currently pervades the FCC," the report said the Committee found that key witnesses "were unwilling to testify or even have their names become known." For that reason, they issued a report in place of a hearing "to protect the many honest people who came forward under a promise of protection or anonymity." Chairman Martin was invited to meet with the Committee to discuss matters addressed by the investigation, but the report said he "ignored [the Committee's] invitation," as did his Chief of Staff Daniel Gonzalez and Chief of Public Safety and Homeland Security Bureau Derek Poarch.

In its 110-page report, the Committee described 12 allegations, ranging from retaliation against FCC employees who differed with the Chairman's policies to enhanced 911 wireless services to broadband over power lines (BPL). To go along with the 12 allegations, 22 exhibits were attached to the report, such as internal e-mails, e-mails from FCC commissioners to their staff, statements made by FCC commissioners and letters to and from commissioners (including Chairman Martin). Not all 12 allegations were substantiated by the Committee.

* Broadband over Power Lines

Concerning BPL, the report alleges that FCC officials "ignored complaints of radio frequency interference caused by BPL high-speed Internet technology, delayed an enforcement investigation for two years and improperly withheld engineering data regarding BPL from the public."

The report found that in October 2004, as then-Chairman Michael Powell issued his final rule "defining BPL access and setting technical and administrative requirements to

protect licensed radio operators from harmful interference," the FCC "withheld from the public certain engineering reports on which it relied in promulgating the rule" from the final rule and order.

Even though the BPL rules were adopted during Powell's tenure, the report found that "it was under Chairman Martin that the Enforcement Bureau and the General Counsel continued to withhold the redacted engineering reports and insisted on doing so in the course of the ensuing litigation [with the ARRL]"
<<http://www.arrl.org/news/stories/2008/04/25/10064/>>.

The report goes on to say that on April 25, 2008, the US Court of Appeals for the DC Circuit found that the FCC, in the case filed by the ARRL, "violated the Administrative Procedure Act when it played 'hide and seek' with engineering data used in its support of the order and 'cherry-picked' a study on which it had relied"
<<http://pacer.cadc.uscourts.gov/common/opinions/200804/06-1343-1112979.pdf>>.

"The fact that the FCC withheld the required engineering reports in this matter," the report concluded, "indicates poor judgment and an attempt to hide critical weaknesses in its decision. Ironically, the FCC's attempts to hide this information only served to provoke suspicion and its handmaiden, litigation. This case [filed by the ARRL] illustrates the extent to which a culture of secrecy has developed at the FCC that is as counterproductive as it is unnecessary." The report states that this "particular situation" has been corrected by the courts and technological issues arising from BPL have been "rendered largely moot over time due to improvements" in BPL technology.

"It is distressing, but unfortunately not surprising," said ARRL Chief Executive Officer David Sumner, K1ZZ, "to read that the FCC's mishandling of the BPL issue was simply a part of a broad pattern of dysfunction at the Commission. This is a relatively recent development and is unprecedented in the ARRL's long experience with the FCC -- an association that dates back to the very creation of the agency, 20 years after the founding of the ARRL. While the marketplace failure of BPL and the steps taken voluntarily by the few companies that have deployed BPL systems have combined to minimize interference, the regulatory issue is by no means moot. The rules remain inadequate."

Sumner continued: "More than seven months after the Court remand, the FCC has done nothing to correct its errors, nor has it complied with the very specific instructions from the United States Court of Appeals. These instructions included the disclosure of the studies that it intentionally withheld from the public, but upon which it relied in adopting its rules. Indeed, the only step the Commission has taken since the Court's remand order is to mount an unsuccessful effort to oppose our claim for reimbursement of the printing costs for the briefs in the case -- a small fraction of the expenses incurred by the ARRL in our appeal -- expenses that would not have been necessary had the Commission followed the law in the first place" <<http://www.arrl.org/?artid=8338>>.

* Other Findings by the Committee

The report also showed instances of where Chairman Martin "manipulated, withheld or suppressed data, reports and information," and said Martin's "manipulation [of another report] may have damaged the credibility of the Commission, and certainly undermined the integrity of the staff. Moreover, it was done with the purpose of affecting the congressional decision-making, in that it was issued as a report to Congress."

Saying that FCC matters have not been handled in an "open or transparent manner," the report said the FCC "rais[ed] suspicions both inside and outside the Commission that some parties and issues are not being treated fairly." The report stated that the

Committee's impressions were "confirmed" when it discovered that Chairman Martin made a "preemptory reversal" of [a report's] conclusions and that Martin did not seek "further public comment or conduct further studies" thus giving the impression "that the issue was not handled fairly or openly."

The report also found that Chairman Martin's "heavy-handed, opaque and non-collegial management style has created distrust, suspicion and turmoil among the five current Commissioners." The report states that Martin does not afford his fellow Commissioners "direct and unfettered access to the Commission staff and their expert advice, thereby hindering the ability of other Commissioners to carry out the duties of their offices and the work of the Commission."

The report also found that Commission staff have not been "effectively managed." When Martin first became Chairman, he "imposed a major reshuffling of FCC staff throughout the agency." While the report said that a "certain amount of reorganization is not unprecedented" when a new Chairman begins his term, the reorganization "was highly unusual in both its breadth (nearly every senior position at the agency changed hands) and its depth (even a number on non-management line staffers found themselves inexplicably reassigned)." Calling it a "waste of resources, the report pointed out that senior employees with "extensive experience and expertise" were reassigned to junior-level positions; as a result, "it appears that some important Commission proceedings were delayed."

* Committee Methodology

Over the course of its investigation, the Committee staff reviewed "several hundred thousand documents, including 95 boxes of paper documents; conducted 73 interviews of current and former FCC employees and individuals associated with the telecommunications industry; solicited and received e-mails from FCC employees and contractors at a secure e-mail address established for this purpose, and reviewed dozens of allegations." The report pointed out that since the investigation, Chairman Martin has taken "some small steps" to address some of the problems outlined in the report.

The Committee also emphasized that not everything they found is included in its report: "A few allegations were received so recently that they have not been investigated and are not included [in the report]. We have also excluded matters that seemed trivial per se. Still, other allegations have not been adequately investigated because the FCC has not yet produced all of the records requested by the Committee."

CALENDAR OF EVENTS

Jan 1-Jan 31, 0000Z-2359Z, All US call areas. Straight Key Century Club, K3Y. Celebrating 3 years of steady growth, to over 4,600 members on CW. 14.050 10.120 7.055 3.550. QSL. Dan Rhodes, KA3CTQ, 5408 Chillingham Pl, Frederick, MD 21703. www.skccgroup.com

3 Jan 2009 18th Annual Morristown Hamfest
Lakeway Amateur Radio Club
<http://www.lakewayarc.org>
Talk-In: 147.030+

How To Solder Like A Pro

Soldering is a learned skill. With the right tricks, you can be a pro in no time.

Soldering can be a difficult skill to master, but with the right knowledge, you will find it an easy one to understand. There are a number of rules to follow when soldering, many of which are often broken by the unskilled. Here is a list of just a few of those rules.

*Too much is NOT a good thing.

*Never apply the solder directly to the iron and attempt to 'paint' it onto the metal.

*Yes, you CAN apply too much heat.

Soldering takes patience. This is the most important part of learning to solder. You must wait if you want to have a good solder joint. So you need to understand that this isn't a speedy process.

First I'd like to go over caring for your soldering iron. You need to take care of your tips. If you get a coating of melted plastic on your tip, it needs to be replaced. The plastic draws heat from the tip, and you can end up with cold solder joints. You also need to be careful about cleaning your tip. If you scratch it up, it will again lose heat too quickly. Buy a simple soldering stand, with a holder for the iron and a small sponge on the base. The sponge is used to clean the tip while soldering. You need to soak it with cold water, and should use it to clean the tip between each joint that you solder. This helps to keep the tip working at peak efficiency. When you are done soldering, always put a large blob of solder onto the tip as it cools. This keeps the tip sealed nicely, preventing oxidation.

If you are using your soldering iron for the first time you need to tin the tip. This is also true if you are using a new tip for the first time. Tinning is the process of heating up the iron and applying a thin coat of solder to the tip. This helps to achieve maximum heat transfer to the item you are trying to solder.

Now that you have a well maintained and prepared tip, it's time to do some soldering.

First, you need to prepare the surface you will be soldering. If there is already solder on the area you are to work with, you must remove it completely. This can be accomplished with a de-soldering braid. This is a small spool of braided copper that, when heated by an iron, will draw the solder away from your work area and onto itself. Soldering braid can be found at any electronics supply store. You need to be careful to heat the braid, not the solder, allowing the heat to transfer from the braid to the solder. If you lay heat for too long to a contact on a circuit board, you can easily destroy the contact, or land as it is called.

Once you have removed all the solder and cleaned the area with isopropyl alcohol, you are ready for the next step. The next step is preparing the surface for new solder. This is accomplished through tinning the contact or wire with a thin layer of solder. This can be skipped on circuit boards, as the risk of destroying the land is too great.

After you have tinned the surface or wire, you will then lay the tip of the soldering iron against the metal pin on the board, or to the wire if you are splicing. A trick here is to touch just a small amount of solder to the tip, allowing just enough to form a bridge between the tip and the item you are trying to solder in place. This allows for a greater transfer of heat and speeds up the process.

Once the bridge has been made, you then lay the end of the solder against the metal you are soldering, careful to keep it from touching the tip of the iron. Doing this makes certain the entire item is hot enough to melt the solder, thus making an ideal joint.

Once the solder begins to melt, feed it into the joint until there is enough to fill the gap and leave a slight bubble shape. When removing the iron, be careful not to shake or bump the metal you are soldering. This can result in a cold joint which will crack over time. I recommend sliding the tip straight up the pin, if such is what you are soldering, otherwise, just remove the tip smoothly, with an upward motion.

A good joint will be shiny and smooth, with a slight bubble shape to it. It will not completely cover the pin, but incase it, leaving the tip to stick out of the top of the bubble. It will not have any dents or open spaces.

A bad solder joint will look dull, more grey than silver. Or if it has a little curl at the top it needs to be redone. If you need to redo a solder joint, always start from scratch, removing the solder you just put on, and cleaning the surface with alcohol. This will be frustrating at first, but as your skill grows, you will do this less and less often.

Most solder has what is called flux, or rosin, in its core. This aids in the heat transfer but leaves an ugly residue. Clean the solder joint with alcohol before you make a decision on whether it is a good joint or not. Flux residue can hide a bad solder joint.

Splicing wires is another task best done with solder. There a number of ways to splice a wire, I will go over the strongest splices here. First is the eye-hook splice. You take the one side of the wire and bend the bare wire back onto itself, creating an eye much like you would find on a needle. Wrap it a few times to strengthen the tie and then tin the wire. You only need to leave an eye big enough to snake through the other piece of wire. Once you have snaked the other piece through the hole, make another eye with that end, locking the two pieces of wire together. Tin the new eye just as you did the first. Use pliers to flatten the area where the two eyes meet and then solder them together. Then solder the whole thing with a thin layer. You should be able to see the shape of the strands within the wire when you are finished. This is the strongest method of splicing wires that I know.

There is one other method I will be discussing that is not nearly as strong but is much quicker. This method is good for using in situations where no stress will be put on the wires. Take both sides of the wire and splay out the strands. Then bring both sides head on to each other, allowing the strands to mix into kind of a handshake. Then twist the strands so that they grab a little, allowing you to let go of the wire. Now you simply solder the area where the two strands have met, going back about a half an inch in either direction from where they no longer intermingle.

Always use just enough solder in whatever you are doing. There is such a thing as too much. Too much solder lends itself to a cold joint, or cracking later on. Remember to take care of your iron, and it will take care of you. Also remember that the fumes of certain types of solder are not good for you, so wear a mask and always solder in a well ventilated area. I would also recommend wearing safety glasses at all times, as you will find yourself leaning over your work, bringing your eye dangerously close to some very hot substances.

Good luck, and be patient.

Chattanooga Amateur Radio Club, Inc.

Minutes of the December 4, 2008 Meeting

President Bill Dobbs, K4TSF, opened the meeting at 7:04 PM, in the "Sun Room" of the Chattanooga American Red Cross building. He introduced Jim Bowman, W4DFS., and Rick Curtis, W4ATX. New members. . Lowell Bennington, WD4DJW, gave the Treasurer's report.

Bank Accounts

Checking	8,208.36
Hamfest	<u>9,681.82</u>
TOTAL	17,890.17

Cash Accounts

Post Office Bulk Mail	<u>184.23</u>
TOTAL Cash Account	184.23

OVERALL TOTAL 18,074.40

Secretary Charlie Curle, AD4F, read the November minutes. Minutes were approved after corrections were made.

Jack Green, AD4LP, announced that he was net control of the Tennessee Phone Net on Thursday mornings, requested more people check in and suggested that all hams take a turn being a Net Control.

Jim Bowman, W4DFS, and John Simpson, N4NJK, were voted in as members.

Mark Rose, KA4YDC, announced upgrade classes on the 3rd Tuesday of each month. They will be at the Memorial Hospital in the Community room. All grade license upgrades will be available.

Loyd Headrick, K4LCH, suggested buying kits in lots of 10 and building them together.

Rich Curtis, WA4ATX, had announced that he hadn't joined the club last month as had been shown in the minutes, but submitted his application and dues. He was voted in as a member.

The Christmas Dinner will be December 18, 6 PM at the Golden Corral on Hixson Pike. Please talk this up and bring your wife and family or friend, or another ham.

President Bill thanked the Election Committee for their hard work.

Ben Timmerman, AC4HG, announced there will be an additional mailing of the *WAVES*, then will switch to digital with those needing paper copy, he will print a few. Application for membership is not on the web site due to a problem with Google.

A break was taken at 7:36 PM.

The meeting was resumed and at 8:05 PM Mark Rose, KA0YDC, reported on the results of the election.

OFFICERS

President, Mark Rose, KA0YDC
Vice President, Bill Dobbs, K4TSF
Secretary, Susan Miller, KI4RZJ
Treasurer, Jim Knight, KD4EHN

BOARD OF DIRECTORS

Tom Cash, K4ZQX
Tom Wolfe, K4CMY

President Bill thanked the Election Committee for their hard work.

The January meeting will be January 2, 2009 at 7 PM (**Editor Note: January meeting is now set for Thursday, January 8.**) and the February meeting will be the annual Storm Spotter training program, starting at 7:00 PM. Both at the Chattanooga ARC building.

Meeting adjourned at 8:18 PM.

Respectfully submitted, Charlie Curle, AD4F, Secretary

Membership Application
Chattanooga Amateur Radio Club
P.O. Box 23121
Chattanooga, TN 37422-3121

Name: _____ Call Sign: _____ Class: _____

Street or PO Box: _____

City: _____ State: _____ Zip+4: _____

Phone No: _____ Email: _____

Are you and ARRL Member? Yes or No Circle choice.

Spouse: _____ Call Sign: _____ Class: _____

Circle All Applicable:

New member Renewal Associate* Family**

New or Renewal Member \$ 18:00 _____

Associate Member* \$12:00 _____

Family Member**\$9:00 _____

ARRL Membership (New or Renewal)*** _____

TOTAL _____

NOTES:

* **Associate Membership** is available for unlicensed persons or licensed operators living 25 miles or more from meeting location.

****Family Membership** is available for licensed operators living at the same address as Member.

*****ARRL** membership is available through the club as new member or membership renewal. Simply send your application or renewal notice along with this application and your check. Your check should be made payable to the **Chattanooga Amateur Radio Club**. We will send it to the ARRL. (The club gets a handling fee from the ARRL.)

I / we agree to abide by the club's Rules and Regulations.

Signature / s _____ Date: _____

_____ Date: _____

Chattanooga Amateur Radio Club
P.O.Box 23121
Chattanooga TN 37421

BULK RATE
US POSTAGE
PAID
PERMIT NO.
804

ADDRESS CORRECTION REQUESTED

- **Hot News**

- **The January meeting will be **Thursday** January 8, 2009 to avoid New Years.**
- An instructor from The National Weather Service in Morristown will conduct a Spotter Training Class for the February meeting on **Friday**, February 6th at 7:00 pm at the American Red Cross building on McCallie Ave. Registration is not required and all are welcome.
 - 2009 dues are due if you have not already renewed.
- This is probably your last printed Waves. Please see page 1 of this issue. I have sent two messages to 2008 members. Allow ben@brtimmerman.com in your spam filter if you haven't gotten either of them. Then please send me an email to confirming your address. I expect to send only one or two messages a month. Anyone who paid dues in 2008 and does not have access to the internet should contact me using the information on page one.