

# The Ragchewer

August 2006

The monthly newsletter of the  
Lancaster & Fairfield  
County Amateur Radio Club

On the Web: [www.k8qik.org](http://www.k8qik.org)

Send email to [K8QIK@columbus.rr.com](mailto:K8QIK@columbus.rr.com)

## **Club Meetings :**

1<sup>st</sup> Thursday of every month  
at 7:30 pm at the club house.

## **Radio Night:**

Every Thursday except the  
1st Thursday at the club  
house, 6:30 pm to 8:30 pm

## **VE Testing:**

The third Sunday of every  
even numbered month.  
Register at 9:30 am and  
testing at 10:00 am

## **Club House**

### **Location:**

On State Route 37 (Granville  
Pike) next to Beavers Field.

## **Net:**

Mondays at 9:00 p.m. 147.03  
MHZ (+.6)  
146.70 MHZ (-.6) Alternate  
Freq.  
443.875 MHZ (+5)

Club Packet BBS  
145.53 MHZ  
K8QIK-1 BBS  
K8QIK-2: Ohio53

## **Weather Spotter Net:**

146.76 Repeater with 123Hz  
tone every Tuesday at 7:30  
p.m.  
Alt frequency 147.24 MHZ

## **August Birthdays**

Clifford W. Anderson	AA8JH
Michael W. Stutske	KC8FOU
Richard E. Harrison	W8QCO
Fredrick W. Stutske	W8FZ
Charles Kinser	KB8OIW
Dennis W. Frear	AA8LY
Marie T. Moore	KB8VOL
Jerry L. Canfield	KC8VUS

## **Thursday Night Radio Night**

Radio night is every Thursday at 6:30 p.m.  
(except the first Thursday which is the club  
monthly meeting). Work a little HF, make a  
few DX contacts, maybe build something? How  
about a hot cup of coffee and a few good  
stories? We'll have them all waiting for you.

## **ARRL Membership**

When you join the ARRL, or renew your  
membership through the club, we retain \$15 for  
each new membership OR lapsed membership  
(of two years or more), and we retain \$2 for  
each renewal. Please support our club, it doesn't  
cost any more.

## **August VE Test:**

The next VE test will be Sunday August 20th  
at the club house on Route 37. Register at 9:30  
a.m. and testing at 10:00 a.m. Even if you don't  
think you're ready, why not try it you might  
surprise yourself ?

## **Net Manager Wanted**

We're looking for a volunteer to coordinate our  
efforts on the Monday night Net.

## **2005/2006 Officers**

### **President:**

Don Stephenson  
WD8PCF

### **Vice President:**

Scott Snoko  
WD8IXO

### **Treasurer:**

Ed Campbell Sr.  
WD8PGO

### **Secretary:**

Robert Northrup  
KC8PSW

### **Activities Manager:**

Position open  
(volunteer ?)

### **Station Engineer:**

John Hilliard  
W8OF

### **Trustee:**

John Hilliard  
W8OF

### **Editor:**

Jack Travis  
AE8P  
(740) 687-1985

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## August 3, 2006 Meeting Minutes

Prior to the meeting be called to order, President Stephenson had members remember Gary Hanna with a minute of silence and reflection.

At 7:30pm meeting called to order by President Stephenson who led the pledge of allegiance.

There were 16 members present. We had one guest, John Tipka, W8UL, who is the RACES district coordinator.

### **Secretary Report: Robert Northrup, KC8PSW**

Minutes are posted in the Ragchewer. Motion to approve by Charlie, N8KZN and second by Griffin, KG4IDG. Passed.

### **Treasurer's Report: Ed Campbell, Sr, WD8PGO.**

Motion to accept by Robert, KI8JM and second by John, W8OF. Passed.

### **Trustee Report: John Hilliard, W8OF**

John reported he had purchased the 2 new final tubes for the "03" repeater. The cost was less than anticipated.

### **VP Report: Scott Snoke, WD8IXO**

No Report

### **Activities Manager: Position open**

No report.

### **Station Report: John Hilliard, W8OF**

No report.

### **VE Testing: Allan Sellers, KB8JLG**

The next VE session will be August 20 at the clubhouse. Doors open at 9:00 AM And testing will begin about 10:00 AM.

### **Monday Night Net: Position is open**

Aug 7 John, W8OF                      Aug 21 Fred, W8FZ  
Aug 14 Charlie, N8KZN              Aug 28 Gary, W8GTS  
Sept 4 John, W8OF

### **Ragchewer: Jack Travis, AE8P**

Jack said he read the manual thoroughly for the club's printer but after playing with it, has come to the conclusion that it will only print a page (of the Ragchewer) in about 55 seconds. That is a far cry

from the advertised 17 pages per minute. So if any of y'all have a better idea, please get with Jack pronto!

**On another note, if you or someone you know is still not receiving the Ragchewer via email, then email, call, or see Jack at one of the meetings. Get your email address straightened out - Nuff said!!!**

I'm sure everyone has heard of Gary Hanna's passing on August 1, 2006. He was a great guy and we will miss him. Please pass condolences on to Kay, his wife.

If you wish to submit an article, news item, cartoon, or other Ham related bits of trivia, you can email him at k8qik@columbus.rr.com.

### **Emergency Coordinator: Ed Campbell, WD8PGO**

Ed reported on the status of the Violet Twp EMA drill in June and all went well. He thanked all who participated.

The Sweet Corn Festival needs volunteers to help with the parade on Wednesday, Aug 30. The parade starts at 6pm but you need to be there at 4pm. In past years, the festival handed out food passed to those who helped. Soooo, if you love fresh sweet corn (as I do), get there and help out.

There will be a United Way 5K run, held at the Lancaster fair grounds, on November 11, 2006. As in past runs, you will need to be there at 8AM and the run commences at 9AM and back home by Noon.

As stated earlier in these minutes, our guest tonight was John Tipka – W8UL, who is the EMA district Coordinator for Central Ohio. John presented information about EMA training classes that are free or minimal fees collected. So, if you want to do something with your radio equipment besides yakking on 2 Meters, then get involved, get some training and help out. It's a great way to give back to the community where you live.

### **Safety Report: Scott Snoke, WD8IXO**

No Report

### **The Flower Fund: Juanita Gaffney, KC8OYO**

There was \$10 collected for the fund and John

Hillard-W89OF won half. He was buy'n' after the meeting (soda of course).

Kay Hanna, KC8HJW relayed through Connie Snoko her thanks for the lovely planter in memory of Gary.

**Old Business:**

Charlie said the firehouse antenna project is still being worked but on hold until the weather turns lousy with cold and snow.

Charlie also reported the Lancaster Festival folks donated \$500 to the club for services rendered on the 4<sup>th</sup> of July activities.

**New Business:**

This is a notice for past club officers/members who are no longer serving as an officer to return your club house key so that new officers may use them. Please come to the next meeting or mail your key to your club treasurer Ed Campbell, 1243 Quarry Rd SE, Lancaster, Oh 43130.

The President asked for volunteers to form a committee to find candidates for club officers in

2006/2007. Elections will be held at the October meeting. Members thus far are: Miles, KD8CPY and Ralph, W8BVH. The President may tap others for this esteemed position, so don't shirk your club duties.

Jack, AE8P created LFCARC brochure. It is a double-sided tri-fold brochure and was circulated during the meeting. All present thought it was great. The President will look into the cost to print a small quantity and will bring that info to the next meeting.

The membership application for Ed Bennett Jr., was circulated for the second time and he was voted into membership as an associate member at this meeting. Welcome Ed!

Charlie, N8KZN said he would host a steak fry for the Radio Night on Aug 17. Please let Charlie know if you will attend, as he needs to order enough steaks for all present.

Meeting adjourned at 8:16 PM.

Respectfully submitted,  
Robert Northrup, KC8PSW

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★ ★ ★ ★ Gary Hanna, KC8HCD – SK ★ ★ ★ ★  
★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

He loved being a ham. When Gary became a ham, he was there to help in any way he could. As his health failed him, he had to give up a lot of things he enjoyed doing.

Gary and his wife Kay, KC8HJW did a lot for our Thursday night get togethers. Our silverware, some of our chairs and other things we use are thanks to them.

Kay, you are a #1 wife. You did your best and Gary gave you a lot of credit for what he was.

Gary wanted to leave this world quietly and with his family and his wishes came true.

Gary, our prayers are peace and no more pain for you. May God grant Kay and your family peace and

contentment. The Hanna's were an asset to the club and we hope Kay continues her association with us. Gary will be greatly missed, he was one of a kind. Kay we are glad we still have you.

Your friends  
K8QIK and the Snokes.

*Editors note: Though I have known Gary for only a short time, I considered him my friend. I have really missed him at the radio club meetings and the following week putting the "Ragchewer" together. He always had a smile for me and usually a funny story to tell. I know he had some serious health problems but he lived every day with a positive outlook.*

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## Upcoming Hamfests

**August 12** is the Northwest Ohio ARC hamfest in Lima. You can get more information at <http://www.nwoarc.org>

**August 20** is the Warren ARA in Warren. You can get more information at <http://www.w8vtd.org>

**September 10** is the Findlay Radio Club hamfest in Findlay. You can get more information at <http://www.findlayradioclub.org>

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## Tubes For Sale

If you need tubes for your boat anchor or TV contact Jeff Bell WD8JLI at 614-774-2973 or email at [jbell@imagearray.net](mailto:jbell@imagearray.net) he has a huge supply for most needs.

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## Your License Expiration!

Have you checked your ticket's expiration date recently? Even with the two-year grace period, it's easy to forget to renew. Better check it now. You probably *won't* receive a reminder in the mail unless it's from some group who wants you to pay to have them do it for you. See one of your local VEs instead.

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## Free Swap and Sell

If you have anything ham radio related, you can swap it or sell it here. List your items for free. Give a price and how to contact you. Send the list to [K8QIK@columbus.rr.com](mailto:K8QIK@columbus.rr.com)

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## ANTENNA FOR HAND-HELDS

By Max KO4TV

There was some discussion recently on the 146.64 Repeater concerning the "Possum Tail" antenna for hand-helds, and most of the newer Hams (and quite a few of the older ones) had never heard of it. It was sold in the past under the name of "Tiger Tail" by several sources for as much as \$7.95, (plus shipping, of course), and performed pretty much as claimed. However, many of the purchasers were not too pleasantly surprised when they opened their package and found only a short piece of wire with a clip on one end. In spite of their initial disappointment, they were usually well pleased with the performance, if not the price.

So just what is a "Possum Tail" and why the name? We all know that Tigers are somewhat scarce in the Carolinas, but Possums are plentiful, so why not use the name of a critter most of us are familiar with? A few years ago I built a "Possum Tail" and made several comparison checks against other antennas. The following results were obtained with a home brew field strength meter and a 2 watt hand-held, mounted in a fixed location, far-field test setup:

While these readings are all relative, it is obvious that the "Possum Tail" has much to offer for little or no investment.

<u>Antenna</u>	<u>Field Strength relative reading</u>
2 element Quad	100+
"Beer can" J-Pole	100+
Quarter wave whip	100+
“ “ “ “ with Possum Tail	110
7 inch “Rubber Duck”	30
“ “ “ “ with Possum Tail	80
4 inch “Rubber Duck”	5
“ “ “ “ with Possum Tail	15

So how do we go about making one of these "Miracle Antennas"? Simply take a 19 inch piece of small, flexible wire, either insulated or bare, and fasten it to the metal ground shell of the antenna fitting on your hand-held. You can make a metal clip by bending a paper clip to snap over your antenna ground shell and soldering the wire to it, or for a more permanent installation, solder the wire directly to the BNC or SMA fitting on your antenna. Since most of these fittings are chrome-plated brass, it is wise to scrape or file a little of the plating off to insure a good solder joint. When using hand-held, allow the wire to droop straight down. This provides the "missing" ground element of your antenna, turning your existing antenna into a center fed half-wave doublet. Try it-You'll like it.

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## The Wayback Machine #2

By Bill Continelli, W2XOY

Monday, April 15, 1912, 12:30 AM. The Wayback Machine is over the North Atlantic, at 41 degrees 46' north, and 50 degrees 14' west. Down below is a majestic ship, the largest and most luxurious ship in the world, on its maiden voyage. In the wireless room is a 5kw Marconi station, and before it sit two tired operators, who make \$20 per month, not as employees of the shipping line, but rather as employees of the Marconi Company. The in basket is still full of messages, everything from personal telegrams to stock market quotations. They are so busy working Cape Race, Newfoundland, that they didn't even notice the slight grinding jar 30 minutes earlier. As the two wireless operators, Jack Phillips and Harold Bride, passed the routine traffic, the Captain came in, said the ship had struck an iceberg, and told them to send a distress call at once. The blue spark jumped across the gap as Phillips sent "CQD" (come quick danger). "Send S.O.S." Bride said, "It's the new call and it may be your last chance to send it".

Thus began the moment in history that changed radio. Two hours later, Jack Phillips and over 1500 others were dead, the "Titanic" lay at the bottom of the ocean, and 713 survivors huddled in half filled lifeboats waiting to be rescued. The tragic errors in the story of the "Titanic" pointed out the need of wireless regulation.

The first ship to answer the distress call was the German Liner, the "Frankfurt". While the "Frankfurt" wireless operator was informing his captain, the "Carpathia" and Cape Race chimed in. When the "Frankfurt" operator came back to get more information, Phillips tapped back "SHUT UP, SHUT UP, YOU FOOL. STAND BY AND KEEP OUT". While this would seem bizarre by our standards, it made perfect sense to the operators of 1912. The "Titanic", "Carpathia", and Cape Race were equipped with Marconi operators and stations, while the "Frankfurt" utilized the services of Marconi's German competitor, Telefunken. This commercial war was extended down to the individual operators. No routine traffic would EVER pass from a Marconi station to a rival, and, even in an emergency, if Marconi stations were available, the others would be shut out.

The wireless controversy would continue after the "Carpathia" picked up the survivors. A wireless

message was received, allegedly from the "Carpathia", which said "ALL PASSENGERS OF LINER "TITANIC" SAFELY TRANSFERRED TO THIS SHIP AND "S.S. PARISIAN". SEA CALM. "TITANIC" BEING TOWED BY ALLEN LINER "VIRGINIAN" TO PORT". Other wireless messages appeared, also stating that ALL passengers were safe, and the ship was being towed in. There was just one problem--these messages were not coming from the "Carpathia". For one thing, her wireless had a maximum range of 150 miles. For another, the "Carpathia" wireless operator had made only a few transmissions to the "Olympic" (sister ship of the "Titanic" and another Marconi operation), in which he tapped out the list of survivors, some coded messages from Bruce Ismay, President of White Star Lines, then shut down his station. So complete was the radio silence from the "Carpathia", that they refused to answer the calls from Navy cruisers sent to the scene by President Taft.

The White Star Line, owners of the "Titanic", were still insisting that everyone was safe and the ship had not sunk. But even as they made these claims, they had all the horrific details from the "Olympic". And so would the rest of the world, thanks to a 21 year old operator named David Sarnoff, who managed to detect the faint signals of the "Olympic", and broke the story. Faced with the truth, and hounded by thousands of reporters and outraged relatives of passengers, the White Star Liner officials finally broke down and revealed all.

Meanwhile, the "Carpathia" steamed towards New York City. When she passed within range of shore stations, there were "frenzied attempts by amateur wireless operators which formed a hissing mixture from which scarcely a complete sentence was intelligible". It didn't matter, because the radio silence continued.

At the Port of New York, the "Carpathia" was met by Senator William A. Smith of Michigan, a no nonsense Populist who was the Chairman of the committee investigating the shipwreck. He immediately slapped subpoenas on everyone possible, including Harold Bride and Harold Cottam, wireless operator on the "Carpathia". Marconi himself, who was in the U.S. at the time, (and had planned on taking the "Titanic" back to England), was also summoned to appear.

The hearings revealed the information given

above, plus the disturbing fact that the "Californian" was just 10 miles from the "Titanic". Not only did the "Californian" not have a full time wireless operation, but the ship's captain ignored the eight distress rockets sent up by the "Titanic". As to the origin of the false messages concerning the saving of the ship and passengers, no answer was ever found. However, Senator Smith sarcastically noted that, in the interim, the "Titanic" was quickly reinsured, and stock in the Marconi Company jumped from \$55 to \$225 per share. The Senator DID find out the cause of the "Carpathia" radio silence--it was Marconi himself. He had sent wireless messages to Bride and Cottam stating "MARCONI COMPANY TAKING GOOD CARE OF YOU-KEEP YOUR MOUTH SHUT-HOLD YOUR STORY-YOU WILL GET BIG MONEY-NOW CLEAR". It turned out that Marconi had an agreement with the New York Times for an exclusive story. Thus, essential information for desperate relatives and official inquiries from the President of the United States took a back seat to Marconi's interest.

When Marconi got on the stand, Senator Smith pounced on him with astonishing vehemence. Marconi had been lionized by the nation, and now the Senator was treating him like any other entrepreneur who put profit above the public. Senator Smith was warned that his attack on a man as popular as Marconi was political suicide, but he didn't care. In his obsession with his belief that the unregulated wireless spectrum was partly to blame in the "Titanic" disaster, he painted Marconi as a man willing to subordinate the public good to his goal of a complete wireless equipment AND spectrum monopoly. Senator Smith used the "Titanic" hearings

to condemn the laissez-faire status of the wireless, and appeal for the international regulation of radio.

On May 18, 1912, Senator Smith introduced a bill in the Senate. Among its provisions: 1) ships carrying 50 passengers or more must have a wireless set with a minimum range of 100 miles; 2) wireless sets must have an auxiliary power supply which can operate until the wireless room itself was under water or otherwise destroyed; and 3) two or more operators provide continuous service day and night. In response to the interference generated over the years, and especially when the "Carpathia" was within range, a provision was added that "private stations could not use wavelengths in excess of 200 meters, except by special permission". To avoid "ownership" of the spectrum by the Marconi Company, licenses would now be required, issued by the Secretary of Commerce. Each Government, Marine, or Commercial station would be authorized a specific wavelength, power level, and hours of operation.

The initial legislation had considered the elimination of all private, non commercial (i.e. amateur) stations, but Congress realized that would be difficult and expensive to enforce. Therefore, since it was a "well known fact" that long wavelengths were the best, and anything below 250 meters was useless, except for local communication, it was decided to compromise and give the amateurs 200 meters, where they could work 25 miles maximum and would die out of their own accord in a few years.

How the amateurs coped with 200 meters will be our focus next month. Hope you'll join us for another trip on the Wayback Machine.

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### Nominating for Officers

The President has appointed a nominating committee to prepare a full slate of nominations for officers for the coming year.

The nominating committee will report their slate at the September meeting. Additional nominations

may be made from the floor at that time.

Nominations may not be made after the September meeting. All members nominated must agree to serve if elected, before the September meeting is adjourned.

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### Put Your Name on the Ballet

Election time for our Amateur Radio Club is almost here. There won't be any mud slinging, no endless TV or radio ads, just this friendly reminder that the time is near and YOU have a chance to make a difference in YOUR Amateur Radio Club. Don't be afraid to step up to throw your hat in the ring and

volunteer to run for an office. You don't need any experience! You just need to be a Club member and have the desire to help our Club. If you are interested in running for President, Vice President, Secretary, Treasurer or Activities director, please call or email a member of the nomination committee today!

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## August 26 Ohio QSO Party

By Gary Mikitin, AF8A

Once again, it's our annual opportunity to make the Buckeye State shine on the HF bands via the Ohio QSO Party.

The 2006 running of the Ohio QSO Party will be Saturday, August 26. It goes from noon to midnight, EDT. Activity will be on the HF bands, 10 through 80 meters, CW and SSB.

Stations inside Ohio can work anyone, anywhere. Stations outside of Ohio (anywhere in the world, and yes, we do get entrants from Europe) can only work stations in Ohio -- so we Buckeyes are the hunted, not the hunters for a change!

There are numerous awards (certificates and plaques) available -- including a club competition. To date, these are the sponsored plaques, available to the top scorers in each category:

2006 Award Plaques and Sponsors:

- Ohio Single Operator High Power: Findlay Radio Club
- Ohio Single Operator Low Power: The Cincinnati Buckeye Netters
- Ohio Single Operator QRP: Kanga US
- Ohio Single Operator Phone : Muskingum Ham Radio Club
- Out of State Single Operator High Power: Muskingum Ham Radio Club
- Out of State Single Operator Low Power: The Canton Amateur Radio Club
- Out of State Single Operator QRP: Pat Collins N8VW

- Single Operator DX: The Northern Ohio DX Association
- Ohio Multi Operator: The Wayne Amateur Radio Club
- Ohio Mobile: The Lake County Amateur Radio Association
- Ohio Club: The Mad River Radio Club
- YL: The Buckeye Belles

The OQP Organizing Committee is hoping that Ohio hams are making plans to be active, whether from home, camp or mobile in the Ohio countryside. The OQP Committee's annual goal is to have all 88 counties on the air. There will be plenty of activity for all 12 hours. Operate for a short time or the whole contest period -- whatever suits your time budget.

Full details are on the official OQP web site, <http://www.oqp.us>.

Past scores, a "Quick Start Guide" to the OQP, logging software information, paper forms and operating aids, and a regularly updated page showing planned activity, county by county, are all there for you.

For the latest OQP information, there is also an e-mail reflector. You can sign up for it on the OQP Web Site.

If you have any questions, they may be directed to [af8a@arrl.net](mailto:af8a@arrl.net) or [jimk8mr@aol.com](mailto:jimk8mr@aol.com).

We hope you'll join in the fun of the 2006 Ohio QSO Party, Saturday August 26!

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## QRZ?

How many times have you heard a station identify itself with ZZZittttt or N9zzzzzzz, or buzzz, some other noise in place of a call sign? Lazy speech takes over, and where you should hear a call sign, you only hear a noise or a mumble. Letters are run together too fast to be understood, or they are just mumbled.

The operator sounds like he has a speech impediment. The first time this happens you may ask the operator to repeat it. When you get the same indiscernible sound you finally have to ask for phonetics before you finally recognize a call sign.

This is not keeping in the spirit of the regulations.

**FCC Amateur Rules and Regulations Part 97.119 Station Identification** says: "(a) Each amateur station . . . must transmit its assigned call sign . . . for the purpose of clearly making the source of the transmissions from the station known to those receiving the transmissions."

Did you notice the word "clearly" in there? Come on ladies and gentlemen. You worked hard for that license. Be proud of it. Say it clear so that all can understand and recognize it. If you are too stubborn to change, can you at least set your radio to give an automatic CW station ID? That's MY opinion!

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## The Cost of Ham Radio

By Eric Falkof, K1NUN

While reading *eHam* today, I found a discussion about the cost of Ham Radio vis-à-vis cell phones, internet usage, and so forth (“Last Free Means of Communication?”). The arguments, mostly in concurrence, focused on the joy of communication, building, experimentation, and the wealth of sub-hobbies that ham radio really offers.

However, there was one comment that made me think. It was from WI7B, who said:

*“... many costs are hidden. This was brought home to me in a letter read on a Canadian 160m net after a recent coalfield disaster. It was written by a ham friend of one of the miners' killed. The letter ended by saying:*

*‘I ask you all that every time you power on your rig and rotate your antenna, to just remember the real cost of that power you take for granted when enjoying our hobby.’”*

Now, what does this really mean?

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Power is not free. We pay our utility bills and, therefore, pay for power. Even if we operate a totally solar-powered station, we pay for the company that manufactured the solar panels and it, in turn, paid for power. If we have a hydro-electrically operated station, such as turning a generator in a river's flow, someone paid for the generator and its manufacture. Get it?

To me, the cost of ham radio is measured in dollars, for sure, but there is more to it than that. Ham radio is something we enjoy due to the sacrifices others make in our behalf. Those sacrifices are measured in dollars, hours, and, yes, sometimes in lives. So, remember that anonymous writer's suggestion to think about the real cost of the power you use when you turn on your radio or your high power amplifier. Think of the risks others make so we can enjoy our hobby. What debt do we incur, and to whom is it payable?

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## Ice

There is a new cell phone safety concept called “ICE” that everyone who uses a cell phone should be aware of. A nationwide safety effort co-sponsored by the American Red Cross and the Department of Homeland Security is designed to encourage families to make simple preparations for emergency situations. With terrorist attacks always in the back of our minds, it is important that all of us prepare now for what may or may not happen at any time in the future.

ICE stands for “In Case of Emergency.” It uses your cell phone's directory to tell police or EMT's who to contact in case of an emergency. It can help authorities save your life. The concept was invented by paramedic, Bob Brotchi, in the UK.

Storing ICE numbers in your cell phone is simple to do. Enter your emergency contacts as ICE-Mom, ICE-Sis, ICE-bro, ICE-Dr., etc. Input the appropriate number for each entry. If you have existing medical problems, you can identify the person with detailed knowledge of your meds and/or conditions as ICE-Med. Your ICE contacts will all appear together in your directory. Authorities recommend at least five

ICE entries. This increases the probability of them being able to reach one or more of your contacts, which could be vital in an emergency situation. At least one of your ICE numbers should be an out-of-town number. We all remember what happened to local cell phone calls on 9/11. Also, typing in a space or a period before the I in each ICE entry may place all of your ICE contacts right at the head of your directory list. Not all cell phones are capable of this, but it's worth a try. It's a good idea to tell those you choose to use as ICE contacts what you are doing so they won't be surprised by an emergency contact call and not know what it is all about.

If you want to be even more secure, go to [www.icecontact.com](http://www.icecontact.com). At this site you can become a member for a fee and have all your emergency information stored by them. Your ICE contact will go to them and they will have all of your information immediately available.

For more information on National Preparedness Month, go to [www.ready.gov](http://www.ready.gov). Thanks to the REACT International web site for this information.



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## Local Radio Nets

These are the local radio nets to the best of my knowledge. Any errors or additions to the net list should be sent to me. K8QIK@columbus.rr.com.

### Daily

9:00am 147.030 Medicare Net (Lancaster)  
7:15pm 147.240 Central Ohio Traffic Net (COTN) (Columbus)

### Monday

8:00pm 145.170 Delaware County Net (Delaware)  
8:30pm 147.240 Swap-N-Shop & Discussion Net(Columbus)  
9:00pm 147.030 Lancaster Amateur News Net (Lancaster)

### Tuesday

7:30pm 146.760 Central Ohio Severe Weather Net (March-Sept) (Columbus)  
8:00pm 145.110 AMSAT Net (Columbus)  
8:00pm 147.285 Madison County Amateur Radio Club (MARC) Net (London)  
9:00pm 146.880 Newark Amateur Radio Association Net (Newark)  
9:00pm 145.190 Buckeye Bells Net (YL net, OM's welcome) (Worthington)  
9:00pm 147.450 Amateur Television Net (simplex)

### Wednesday

8:00pm 147.060 Central Ohio ARES Discussion Net (Columbus)  
8:00pm 145.110 Dayton ARA ARES Net (Columbus)  
9:00pm 147.345 Hocking County Net (Logan)

### Thursday

### Friday

8:00pm 145.490 CARA CW Learning Net(Columbus)  
10:00pm 147.240 Late Night Discussion Net (Columbus)

### Saturday

Midnight 145.110 Round Table Discussion Net (Columbus)

### Sunday

7:00pm 145.490 Central Ohio (SSTV) Net (first Sunday of month(Columbus))  
8:00pm 145.43 Central Oh Scanner (SWL Net (3rd Sunday of month) (Columbus))

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## RoHS

After July 2006 the European Union (EU) Directive on the Restriction of certain Hazardous Substances (RoHS) bans the use of lead (Pb), Cadmium (Cd), mercury (Hg), hexavalent chromium (Cr (VI)), polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs) in electrical and electronic equipment sold in or from any EU member state. Most of these substances have been widely used in electrical and electronic equipment in

the past (lead-based solder and cadmium-plated whip antennas, for example). Though RoHS is an EU directive, it will have global consequences, because large electrical and electronic equipment manufacturers sell their products throughout the world and it will not be cost-effective for them to design and manufacture different products for the EU and for the rest of the world.

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## Operating Tip

To get better quality audio from your radio it is a good idea to talk across your mike rather than to talk directly into it. If you are using a push-to-talk mike, or a fixed station mike, put your lips right at the edge of the mike and talk across it. It's still a good way to

get crisp, clean speech. Talking across the mike element cuts down on breath sounds, the "popping" of the "P's" and similar sounds. This technique makes communications more understandable and more pleasant for other operators.

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## Fire Extinguisher ABC's

by John Toscano, WØJT

A fire extinguisher is an important item to have on hand for emergency preparedness, even in your ham shack. Do you know the **ABC's** of fire extinguishers? Typical fire extinguishers are rated according to their ability to fight **Type A** fires (ordinary combustibles, such as wood, paper, cloth, rubber, and plastics); their ability to fight **Type B** fires (flammable liquids, such as oils and gasoline; and combustible liquids, such as charcoal lighter fluid and kerosene); and finally, their ability to be used safely in the presence of energized electrical circuits (**Type C** rating). There are also highly specialized extinguishers that the ordinary consumer would not need to be concerned with, such as a **Type D** extinguisher for combating a fire consisting of combustible metals like magnesium.

The **Type A** and **Type B** ratings are given a numerical value. The larger the value, the larger the fire of that type that the extinguisher can fight. The numerical scales for the **Type A** and **Type B** capabilities are not comparable, so an extinguisher rated as 2A10B is not necessarily capable of fighting a **Type B** fire that is 5 times as large as a **Type A** fire. This rating actually means that the extinguisher has the same firefighting capacity on a **Type A** fire as a 2.5-gallon water extinguisher, and that it is able to extinguish approximately a 10 square-foot **Type B** fire. **Type A** ratings typically range from 1 to 40, and **Type B** ratings typically range from 1 to 640.

The **Type C** rating is an all-or-none affair. The

device is either safe to use on an electrical fire (has a **Type C** rating), or it is unsafe to use on an electrical fire (does not have a **Type C** rating). Typically, the issue of **Type C** capability is related to whether or not the extinguishing agent conducts electricity (and could cause the firefighter to be electrocuted).

A water-containing extinguisher is unsafe on flammable liquids and conducts electricity, making it unsafe on electrical fires, hence it will have only an A rating.

Dry chemical extinguishers typically have either a **Type BC** rating (usually containing sodium or potassium bicarbonate), or a **type ABC** rating (typically monoammonium phosphate).

For fires in sensitive electrical equipment, Halon used to be the agent of choice due to lack of residue on the equipment, but due to ozone depletion concerns, it is no longer readily available, and alternatives such as Halotron are available. Carbon dioxide extinguishers are popular because they leave no residue, but they are poor at fighting **Type A** fires.

To use a fire extinguisher, remember the acronym: "**P A S S**".

**P**ull the safety pin,

**A**im at the base of the fire,

**S**queeze the trigger or handle, and

**S**weep across the fire until it is out.

For maximum personal safety, be sure you have two exits before starting to fight a fire, don't get too close, don't enter a smoke-filled area, and work with a buddy!

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## Benefits You're Entitled to as an ARRL Member

### ***QST*, Your Monthly Membership Journal**

*QST* is simply the source for news and information on any topic that's part of, or relates to, Amateur Radio. Here's some of what you'll find every month: Informative and hard-hitting Product Reviews of the newest radios and accessories from hand-held and mobile FM radios, to home-station transceivers, antennas and even shortwave radios.

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Each month's Coming Conventions and Hamfest Calendar columns show you who's getting together every month at hamfests, conventions and swap meets in your area.

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The New Ham Companion section is filled with features and how-to information just for beginning hams. There's no jargon-filled "tech talk"--just straightforward, easy-to-understand articles designed to get you on the air doing the things you like best. Whether you're interested in contesting, DXing, or radios, accessories and antennas you can build at home, *QST* covers them all: New trends and the latest technology, fiction, humor, news, club

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The Technical Information Service (tis@arrl.org) has been around for a long time, but, thanks to the addition of new staff, it has an all new face! Questions on topics ranging from A (antennas) to Z (Zener diodes), and just about anything in between, are answered by expert ARRL Technical Coordinators and Technical Specialists in the field and at ARRL Headquarters. Our Headquarters technical staff will help you over the phone, refer you to a volunteer ARRL Technical Specialist in your area, or send you the needed information from a growing collection of information packages. For really difficult questions, one of our Laboratory Engineers will research our technical library and send you an answer by postal or electronic mail.

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Preferred subscription rates for QEX, the ARRL Experimenter's Exchange; and NCJ, the National Contest Journal

To obtain more information about any of these benefits and services, please write or call:

The American Radio Relay League, Inc  
225 Main St  
Newington, CT 06111 USA

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## **An Old Timer Takes a Look at PSK 31**

By John Drum, W4BXI

**What Exactly Is PSK 31?** PSK 31 is a fairly new digital mode for Keyboard to PC communications. PSK, or Phase Shift Keying, is done at the rate of 31.25 baud, hence "PSK 31". Because PSK 31 takes advantage of the power of the Home PC with a Sound Card. It allows the user to work weaker signals than RTTY and with a much narrower use of the RF spectrum. In a new rig (like the Ten Tec Pegasus using a home PC we see a small rig that can do PSK 31 with ease. With PSK 31 you can lock in and work stations that you can barely hear by ear! And you can have non-interfering QSOs every 65 hertz or so! That seems especially valuable after this weekend of the ARRL DX CW--it was crowded at times.

**Varicode:** The developer of PSK 31, G3PLX--

Peter Martinez, was the developer of AMTOR; he took advantage of every thing that went before when he sought to improve on RTTY and AMTOR. He even developed a new language, "Varicode". Baudot and ASCII codes, used heavily by digital modes, have fixed length characters with overheads of start and stop digits. Peter recognized that the letter "e" is used a lot, so he gave it a short code 11. Conversely, the letter Z is seldom used, so he gave it the code 111010101, etc..

**Why all this?** If you were around for the RTTY of the 1950's, you remember the BIG Teletype Corp (AT&T Western Electric Co.) green machines with three row keyboards, hot smelly oil, and that cheap roll paper. Mike Maples showed us that RTTY is a LOT easier now, but it has a lot of inefficiencies based on old technologies.

**How? What is required?** You will need your HF transceiver, a PC with sound card, free software, two resistors, and two ordinary shielded audio cables...that is all! This is like going into the Phone Patch connectors of the back of your transceiver; or if you are too young to know about that, it can be as easy as taking audio from your speaker, and sending audio from the PC sound card into the Heil jack of your Transceiver mike input.

**This Mode even has a WEB SITE!!** Check out the Web site in the reference at the end. This gives incredible step-by-step guidance and explanation as to what this is all about. There is even a PSK 31 Reflector for users!

**Opinions...** A possible advantage of the new (Year 2000) license structure is that hams will create a push for more and better PC/keyboard modes (such as PSK 31 and MT63, etc), but I doubt it. It may breed a new generation of folks that were impressed with the ease of learning 5 WPM and became eager to learn 20 WPM, but I doubt that too. My opinion is that it will create enormous pressure by new licensees to LET THEM GET ON THE AIR AND TALK.

I was a kid in the 1953 waiting for my first ticket, and I remember the old timers at the Richmond ARC after a presentation on SSB, using the old Central Electronics unit."...This stuff will cause the end of

AM Phone...all our equipment will be obsolete..."

SSB did prevail and now we have more people on Phone than anyone ever imagined. Just listen to 40 meters on a Saturday morning! SSB is not sufficient to keep everyone happy. NOW WHAT WE REALLY NEED IS A NEW TECHNIQUE FOR VOICE. I don't have a clue what it will be called or how it will work, but a safe bet for now is that it will involve the home PC. (Regular Internet users may be familiar with the "IWQ software". This allows two way audio and video for several people at once! No antennas, no license, no linear amplifier, no transceiver!)

**Soap Box:** I was totally awed by the "Citizens Band" evolution. No one predicted it or planned it. It evolved and worked well for many. Regulation did nothing to help, that I could see. Then the craze subsided, sort of.

The fun of ham radio is that it evolves; we had manual logs and big dupe sheets for Field Day. (I bet the ARRL doesn't sell a lot of those today!) Then we had computers and CT, etc. We will always have CW, AM, SSB, Slow Scan, RTTY, PSK 31, MT63, ASCII, and Baudot, etc. Now sound cards--what next? The question is how will we decide to use the spectrum! PSK 31 is an excellent spectrum saver for those who want Keyboard to PC communications.

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## Solar Activity—What Do All Those Numbers Mean?

By Dick Arnold, AF8X

Many hams check the solar activity reports for propagation conditions, but I suspect there are a lot of hams like me who have never taken the time to learn how to read those reports.

For years I have been checking propagation by turning on the radio and surfing through the bands. If I didn't hear any activity, propagation was bad, if I heard lots of stations, it was good.

Recently I decided to find out what propagation reports were all about. I still don't understand all the technical stuff, but I know, solar flares are bad—sunspots are good.

**Solar flux:** (50 to 300) is the measure of radiation from the sun that ionizes the atmosphere in the F2 region and controls the MUF (minimum usable frequency).

**K and A Index:**

These two indices are used in measuring the level of geomagnetic activity. They give indications of the severity of the magnetic fluctuations and disturbance to the ionosphere.

Now the numbers: In order make sense of them, I had to reduce them to terms that I could remember.

- Solar Flux: >180 (ideal)
- K index: >5 (bad)
- A index: >20 (bad)

So from this we see that high solar flux numbers are good, and high K (more than 5) & A index numbers (more than 20) are bad.

The A and K indices broadcast by WWV are the "mid-latitude" values for Boulder, Colorado, and don't represent conditions for the rest of the world.

What to look for: If the solar flux remains above about 150 for a few days with the K index below 2, get on the air and make some contacts!

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## How A Radio-Controlled Clock Works

Radio-controlled clocks contain both a miniature radio receiver and a traditional quartz clock. As a result, a typical WWVB clock contains two tiny quartz oscillators. One is a 32.768 kHz crystal that is used to control the timekeeping, the same type of oscillator you would find in any quartz watch or clock. The other is a 60 kHz crystal used to permanently tune the receiver to one frequency.

The receiver outputs a string of binary ones and zeros to a processing unit that decodes the signal and synchronizes the clock circuitry to the correct time. Because WWVB transmits UTC, the processing unit also applies a time zone correction to convert UTC to local time. This time zone setting is selected by the user, and must be changed if the clock is moved to a different time zone.

Building miniature antennas that work with long wave signals can be a challenge for receiver designers. Many radio-controlled clocks use ferrite loop antennas, consisting of a ferrite bar wrapped with a coil of fine wire, similar to what is found inside an AM radio.

In the case of wristwatches, the length of the ferrite bar is usually about 15 millimeters, and it must be hidden somewhere inside the watch. If the watch has a plastic or ceramic case this isn't a problem, but a metal case can block the signal. Some watches are partially metal, with the antenna hidden underneath a plastic panel near the connection to the watch band,

or under the watch face.

Some radio-controlled clocks now work with more than one station. This usually means that they have more than one oscillator (a 60 KHz oscillator for WWVB and a 40 kHz oscillator for JJY, for example) but typically just one antenna. When a different station is selected, some designs match the antenna circuit to the antenna by varying the capacitance values. The size constraints make it difficult to build an antenna optimized for LF signals, so the goal is simply to get as much of the signal as possible, and to use the local oscillator and signal processing software to pull the time code out of the noise.

Most radio-controlled clocks only try to synchronize at night, because the signal is stronger and easier to receive after the sun goes down. Between synchs, the clock keeps time using its 32.768 kHz oscillator. Typically, the oscillator frequency is within a fraction of a hertz of its assigned value, which means it can keep time to within 1 second for a few days or more. Therefore, one synch per day is enough to make the clock appear to be on the right second, even though it has likely-gained or lost a fraction of a second since the last synch. If the signal is not received the clock won't fail, but simply functions as an "uncontrolled" quartz clock.

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## Antenna Rules

By James Duffey, KK6MC

Every now and then somebody asks me for antenna suggestions. Quite often these people asking are beginners who are afraid of making the wrong choice. In order to help QRPers choose antennas wisely I have compiled a few "rules of thumb". As with any rules of thumb, these are general and there are some exceptions to them. A few may be somewhat controversial and I am sure alternate views will be given by those with opposite views. However I intend these guidelines to point one in the right direction rather than providing a detailed map of what to do.

1. Any antenna is better than no antenna. Rather than agonizing over an antenna choice, just put one up and operate. After operating with it for a while you will become aware of your operating

habits and the shortcomings of the antenna you have erected. That will give you some hints as to which direction you should go with another antenna. You can lose 1/2 of your power in poor antenna system efficiency and only be down an S unit or so. I hear lots of S9 QRP stations. They would still make fine QSOs at S8. I am not advocating antenna inefficiency, but you can live with it. It is better than no antenna at all.

2. Higher antennas generally out perform lower antennas. A vertical on the roof of a one story house is probably a better choice than one on the ground in the backyard. A dipole whose end is tied to a 5 or 10 ft mast on top of the house will out perform one whose end is merely fastened to the eaves.
3. Most people will be happier with a low dipole

than with a vertical. Verticals require a bit more attention to work effectively and beginners can become frustrated in dealing with ground issues.

4. It pretty much doesn't matter what kind of copper wire you use in an antenna. Thick or thin, insulated or bare, stranded or solid, they will all perform fairly well. Any effects due to these characteristics will be "second order". The old formula for cutting a half wave dipole,  $468 / \text{frequency (in MHz)}$ , may be a bit different for

various combinations, but this formula is only an approximation anyway.

5. Whatever antenna you chose, if it is fed with coaxial cable you should use a choke balun. This will prevent the feed line from becoming part of the antenna which can cause all sorts of problems. There are many designs to choose from. My favorite is an air core balun wound from coax.

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## Electric Shock Voltage and Current

High-voltage is dangerous because human contact with high-voltage can cause a dangerous amount of current to flow through human tissues.

Current does the damage, but the focus is on voltage, because voltage causes current. The amount of current of course depends not only on the amount voltage, but also on the amount of human resistance.

Human resistance varies widely from person to person and with the same person from time-to-time. Someone who has just come out of swimming pool with wet hands and bare wet feet will have much lower resistance than someone with dry callused

hands wearing dry rubber boots. Voltage sufficient to kill the first person might cause only a mildly unpleasant shock to the second one.

The human current sensation threshold is about 1 ma. 10 to 20 ma is enough to cause 'can't let go' muscle contractions. 100 to 300 ma causes ventricular fibrillation and generally is fatal if continued.

Measure the resistance of your body with an ohmmeter, calculate the amount of voltage required to produce 1 ma, and consider any voltage higher than that dangerous under current skin conditions.

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## EMA Training Classes

From: Matthew J. Keefe, Director  
Fairfield County EMA & HS  
407 East Main Street  
Lancaster, Ohio 43130  
(740) 654-4357 office  
(740) 652-1520 fax  
[mkeefe@co.fairfield.oh.us](mailto:mkeefe@co.fairfield.oh.us)

Instructor: Greg Keller

### Damage Assessment

<http://emaweb.ema.state.oh.us/training/courses/G605.pdf>  
Description: To provide methodologies for the process of gathering and compiling disaster damage information.

Dates: 9/20/2006

Instructor: Kay Phillips

### Donations Management

<http://emaweb.ema.state.oh.us/training/courses/G288.pdf>  
Description: The course provides an understanding of the key components of an effective donations management plan

Dates: 10/12/2006

Instructor: Dean Ervin

The following classes will be held at the Ohio EMA, 2855 W. Dublin Granville Rd. Columbus, OH. The hours for all training are 0800-1700 for all training dates. There are no prerequisites.

### Debris Management

<http://emaweb.ema.state.oh.us/training/courses/G202.pdf>  
Description: Overview of issues and recommended actions for a major debris-generating event  
Date: 9/21/2006

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## Skin Effect

Nearly all the current carried by a solid conductor is concentrated very near its surface at frequencies sufficiently high that the RF to DC resistance ratio is large. The RF resistance of a solid conductor at such

high frequencies is approximately equal to the DC resistance of a hollow tube with the same external shape and dimensions.

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## Disaster / Major Emergency – What can we expect ?

by Lt. Dan Blackston,  
Chula Vista Police Department

The following list of seventy (70) "things to expect" is not offered as a prediction of doom. Although most of the items are negative, this is a realistic list of problem areas that we can expect to face in a disaster.

Recognizing that problems will appear and giving some thought to them prior to a disaster are steps towards overcoming them. Some of the areas require specific actions; some will diminish with time; some are inherent in disaster operations and must simply be accepted.

Although not every one of the 70 listed items will occur in every emergency, the majority of them will appear in most situations. You are encouraged to scan the list, determine which items are or may become your responsibility, and determine how those items could best be handled or the problem reduced. In an earthquake, there may be violent ground shaking; it will seem to last much longer than it actually does.

1. Fires will occur, caused by electrical shorts, natural gas, fireplaces, stoves, etc.
2. Fires in collapsed buildings will be very difficult to control.
3. The extent of the disaster will be difficult to assess, though this will be necessary to assure proper commitment of resources.
4. Emergency equipment and field units will commit without being dispatched. There will be an air of urgency and more requests for aid than units available to send.
5. Communications will be inadequate; "holes" will appear in the system and air traffic will be incredibly heavy.
6. Trained personnel will become supervisors because they will be too valuable to perform hands-on tasks.
7. Responding mutual aid units will become lost; they will require maps and guides.
8. Water will be contaminated and unsafe for drinking. Tankers will be needed for firefighting and for carrying drinking water.
9. Citizens will volunteer but their commitment will usually be short-term.
10. There may be a multitude of hazardous materials incidents.
11. Aircraft will flood the area; law enforcement, fire, media, civilian, commercial and military aircraft will be a major concern.
12. The Command Post and/or EOC will be overrun with non-essential personnel; media, geologists, architects, engineers, representatives from other jurisdictions, etc.
13. Staging will be essential; the flow of personnel, equipment and supplies will be overwhelming.
14. Although it is an EOC function, the Field Command Post will become the temporary seat of government.
15. Electric power will be interrupted or will fail completely.
16. It will be difficult to shut off the gas; valves that are seldom, if ever used, will be difficult to find, and may not work when they are found.
17. Phone service will be erratic or non-existent. Pay phones will be the most reliable.
18. The media will have the best communications available; be prepared to share or impound their resources.
19. Fuel will not be available because there will be no electricity to run the pumps.
20. There will be an epidemic of flat tires; police, fire, and emergency medical vehicles will sustain a multitude of flat tires that will require repair in the field.
21. Fires will need to be investigated; mutual aid should include arson investigators.
22. The primary police department concern will be law enforcement; there will not be sufficient time or manpower to provide miscellaneous services.
23. It will be dark; there will not be enough generators or lights available.
24. Portable toilets will be in demand; there will be no place to go, and if a place is found there will be six photographers there to cover the event.
25. The perimeter will be difficult to control; citizens and media alike will offer good reasons why they should be allowed to enter the restricted area.
26. Search dogs will be needed early in the operation.
27. Documentation will be very important; there will be a multitude of requests for information later.
28. Riveted steel (oil and water storage) tanks may fail.
29. Streets will be impassable in some areas; it will be necessary to clear streets of rubble in order to conduct emergency operations.
30. The same buildings will be searched more than

once unless they are clearly marked.

31. In earthquakes, there will be aftershocks; they will hamper emergency operations, create new fears among the citizenry and may cause more destruction than the original shock.
32. Many injured people will have to find their own way to medical treatment facilities.
33. Volunteer and reserve personnel may be slow to respond; they will put their own families' safety first.
34. On-duty public safety personnel will be concerned about their own families, and some may leave their posts to check on them.
35. Law enforcement and the media will clash; all media representatives should be referred to the Public Information Officer.
36. Very few citizens will utilize evacuation/mass care centers; they will prefer to stay with friends and relatives, or to camp out in their own yards.
37. Structural engineers will be needed to evaluate standing buildings for use as evacuation centers, command posts, information centers, first aid stations, etc.
38. The identification of workers and volunteers will be a problem; it will be difficult to determine who is working where and on what.
39. There will be rumors; people will be listening to their radios and must be given accurate information.
40. There will not be enough handie-talkies; batteries will soon go dead.
41. Many fire hydrants will be inaccessible (covered or destroyed by rubble) or inoperable.
42. Generators will run out of fuel; jerry cans of fuel must be obtained early to maintain generator powered lighting and communications.
43. Critical facilities will have to be self-sufficient; gas, lights, water and sewage may be out for days.
44. Emergency responders will require rest and must be relieved.
45. Local personnel may be of value as guides for mutual aid responders, or as supervisors for volunteer crews.
46. Equipment will be lost, damaged or stolen, and may never be accounted for.
47. Someone will get the bill; record-keeping and accounting procedures will be important.
48. Traditional non-emergency personnel will want to go home at five o'clock; all public employees must be made to realize that they are a part of the emergency response team.
49. People will die and there is nothing that can be done about it. Non-public safety personnel will not understand why everyone cannot be saved. Priorities must be set to save the most lives possible.
50. Dead bodies should not be an initial concern. Rescuing the living should be the first priority.
51. If phones are working, the number of requests for service will be overwhelming. People will have to fend for themselves; it will be difficult for dispatchers to ignore these pleas for help.
52. Some field units will "disappear"; you will not be able to reach them and will not know where they are or what they are doing.
53. Security will have to be posted at hospitals, clinics, and first-aid stations to control hysterical citizens demanding immediate attention.
54. Representatives from public agencies throughout the United States and many foreign countries will want to come and observe the operations or offer assistance. They will be a significant problem.
55. Department heads (EOC) staff may not have a working knowledge of their assigned areas of responsibility, and will "play it by ear."
56. Some citizens and media representatives will question your decisions because they will not recognize that the safety of field responders is paramount.
57. There are no critically injured in a disaster; only those who are dead or alive.
58. Handicapped and disabled persons will probably die unless personal family and friends can care for them and maintain their life-support systems.
59. Management will not be familiar with field response procedures, and may attempt to change standard operating procedures.
60. Emergency responders (public safety and medical alike) will not be adequately trained to respond efficiently.
61. There will be initial chaos; supplies, materials and equipment needed will not be readily available.
62. There will be a general lack of necessary information; coordinators will want to wait for damage/casualty assessment information to establish priorities.
63. Emergency equipment will not be able to reach some locations because of traffic jams. Tow trucks will be at a premium. Parked or abandoned vehicles will block streets, and emergency



- responders will be the worst offenders.
64. Even though there will not be enough people to initially deal with emergencies, many available personnel will never be identified and never used. After the initial shock, there will be too many volunteers.
  65. General information will be offered in response to specific questions because field units cannot verify the requested information.
  66. Individual public safety officers will be asked to do the work of squads or companies; they will have to recruit volunteers on the spot to provide assistance to their efforts.

67. The message flow to, from, and within the EOC and Field Command Post will break down and become inefficient and unmanageable.
68. There will be an over critical desire to "verify" all incoming information. If it is received from a field unit, it should be considered as verified.
69. Some EOC and Command Post personnel will become overloaded; some will not be able to cope with the volume of activity and information they have to deal with, and some will not be able to cope with the noise and distractions.
70. Things will get better-some time after they have become considerably worse.

## Okay, Who Was the Fastest Code Operator, Ever ?

By Roger Wendell, WB0JNR

I put that question to my friend Marshall Emm, N1FN, who runs the world's best key and keyer shop ([www.MorseX.com](http://www.MorseX.com)). Marshall provided, from memory, some tidbits from the Theodore McElroy legend:

"Ted McElroy started manufacturing keys in 1934. McElroy was a master of both American and International Morse code and he promoted telegraphy most of his life, first as a telegrapher and later as a manufacturer of keys, bugs, and related equipment.

"By age 15, McElroy was a leading telegrapher (Wirechief) for Western Union. In 1922, he won the world championship in Asheville, NC by copying code at 56.5 WPM. That record was beaten in 1934. So, he went back the following year (1935) and beat the world record again. On July 2, 1939, McElroy broke the world record code speed at 75.2 WPM, which remains unsurpassed today. For the record, there is an individual ham radio operator who claims to have beaten it, on the basis that 75.2 wpm in 1939 currency is only worth about 65 wpm today.

"Anyone considering the record should realize that the 1939 contest was a PROGRESSIVE test,

with around a dozen candidates, but only two surviving to the final round. Each round consisted of a 15 minute transmission of text from a newspaper. Speed calculation was about as scientific as you could get— they cranked up the speed a couple notches, and at the end of the 15 minutes they counted how many words had been sent.

"Hams struggle with 5 minute tests (in which they only have to have solid copy for ONE minute!), and the two finalists in the 1939 test had to survive multiple, consecutive 15 minute tests at ever increasing speeds.

"The legend is that Mac astounded the audience by not doing anything when the sending started— except to take a drink of water, and light a cigarette. He didn't start typing until a full 15 seconds of code had gone by. When the tape finished, he kept typing for that same 15 seconds. And it's no coincidence that he also won touch typing contests! Ever the showman, Ted "Mac" McElroy put his name and "World's Champion Radio Telegrapher" on his keys and bugs, which are highly prized today by discriminating operators and collectors."

## APRS - What It's All About

Author unknown

APRS (Automatic Position Reporting System) is more than position reporting. With APRS you can report weather information more accurately than with visual observations. You can send messages and have a documented record of the message. Anything that can be made digital can be reported via APRS.

Things like earthquakes with the magnitude automatically transmitted with the exact location. Of

course there is the position reporting. In fact more than one Ham's stolen car has been recovered with the thief still in it by the transmitter reporting positions on a regular interval. The police were told where the car was by someone looking on the Internet or another APRS unit. In the worst case documented the cars were recovered within 45 minutes after they were discovered stolen.

APRS in its simplest form does not require

expensive equipment, nor does it require an Einstein to get it running. A simple 2-meter handheld with almost any TNC will do. GPS units can be had for less than \$100. If you want to get a little more fancy add a computer. The oldest, slowest, cheapest computers work fine. If you want to go mobile substitute a Palm Pilot for the computer. Do you want it out of the way? Put it in the trunk except for the Palm. Don't like the Palm? Then get a small handheld computer running Windows-CE. Tuck it between the seats and be ready when you need it. One of the best things about APRS and the digipeater network is you can get messages far beyond the normal repeater range and inside the area not covered by HF with just a 5-watt transmitter. This makes it ideal for emergency services work.

Some people don't like the idea of the Internet

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## How to impress a Non-Ham with Your Handheld Radio

Mike Dinelli, N9BOR

Some people see the excitement of ham radio as a thing of the past. How do we convey our love of radio to curious kids and technically savvy adults? We certainly can't compete with cell phones, and perhaps we don't want to, anyway. Amateur Radio should remain a technical pursuit.

We must demonstrate some knowledge before we are even allowed to call our first CQ. After we obtain our tickets, the learning should not stop. For the curious, ham radio is an ideal vehicle for lifelong learning in multiple disciplines.

Take your old 2-meter handheld, punch in a few tones and talk to a ham in Glasgow, Scotland. Instead of talking to the same group every night on the local repeater, you could have Jimmy Khoo, 9W2HJ, from Malaysia stop by to say hello. Perhaps Kappy, W9CJ, is on his way to dinner in Florida and decides he wants to check in with his buddies in Chicago on the MAC repeater. Is this possible? Yes, and it's really quite simple and inexpensive.

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coupled with Ham radio. With APRS you don't need the Internet. The Internet can be an enhancement but is not necessary. How popular is this form of Ham radio? From the W9UUU-10 Digi I regularly see over 300 stations a day. It's a form of digital communication that has many possibilities and uses. I encourage anyone who is interested in emergency communications/Ham radio/digital forms of communications to give this more than a cursory look.

I have just completed communications with a satellite using APRS. What good is that? I now know I can communicate from anywhere in the world including the deepest canyon that cannot be reached by regular means to others. Want to have a contest how far we can talk on 5 watts?

There are several systems available, but one that is growing in popularity is called EchoLink [[www.echolink.org](http://www.echolink.org)] -- free software that allows Amateur Radio operators to communicate with each other over the Internet, using voice-over-IP (VoIP) technology. The program allows worldwide connections to be made between stations, from computer to station, or from computer to computer.

The audio is crystal clear and I can't detect any delay or lost packets using my dial-up Internet account. I don't need an outdoor antenna or have to spend any money, yet I'm in Chicago and I'm talking to three hams in New York. Cool! This could even impress my 14-year old son.

Imagine walking your dog and talking to a ham in England on your handheld. A neighbor walks up and says, "What are you doing?" You say, "I'm talking to my friend, Nigel in Manchester, England. He says it's bloody cold, but he's on his way to a rugby game anyway." This is how you impress a non-ham with your handheld.

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## We Need You

I am not talking about the Armed Forces either. This newsletter is for the members of the Lancaster and Fairfield County Amateur Radio Club and it needs to fill your wants and needs.

Each of us is different. Because of that, we need input for the newsletter from a variety of people with diverse interests. Please consider writing about yourself, your interests or your views. Even a small

paragraph about yourself, a short biography, would be very much appreciated.

Those of you who do know each other may not know what interests we have outside of the monthly club meeting or the normal chatter on the repeater. A short biography to run in the newsletter will help others get to know you and share common interests.

How about funny stories, cartoons, jokes, even

ADVERTISING? The Ragchewer has a circulation of about 85 copies each month, plus, the electronic version is available on the club web page for all to view.

You don't need to be a college graduate, an engineer nor a leader of the club to relate what you tell others around you every day. Heck, even links to good sites on the web are welcome and very easy to

do.

Please give me a call or send an email with anything you have, articles, For Sale items, soapbox comments or critique of the Ragchewer, especially if you have suggestions on how to improve it. This is your newsletter, help make it what you want it to be. Send to: K8QIK@columbus.rr.com

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## How Many Do you Know ? Membership May 1, 1979

President ----- James Moore ----- WD8DVH  
 Vice-President ----- Jack Travis ----- WD8PGN  
 Secretary ----- Cleveland T Riley --- WB8VOA  
 Treasurer ----- John Hermann ----- W8TSF  
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 Paul Dilliard ----- WA8IBT  
 Paul Durant ----- W8FEQ  
 Ralph Eubanks ----- WA8LTO  
 Otto Geyer ----- W8EA  
 Patrick Gilfillen ----- assoc  
 Barry Goldwater ----- K7UGA  
 John Hermann ----- W8TSF  
 Charles Houston ----- W8PGE

John Hull ----- W8RRJ  
 Robert Hupp ----- WA8WSM  
 David Kishler ----- WB8ODK  
 James Koon ----- N8AOK  
 Fred Lamb ----- WD8KVVW  
 Gerry Larabee ----- K8MGA  
 Arnold Lybrook ----- K8TTU  
 Tom McCann ----- K8CM  
 Paul Magnuson ----- K8YYR  
 Victor Mambourg ----- WA8CUI  
 William Migley ----- WB8DHG  
 James Moore ----- WD8DVH  
 William Oelker ----- WN8DMK  
 Earl Ogg ----- WB8RXE  
 Harold Reed ----- K8USB  
 Cleveland Riley ----- WB8VOA  
 Henry Robinson ----- WA8STF  
 Henry Robson ----- W8OXF  
 Paul Rosenberg ----- W8CXI  
 Ralph Ruh ----- WD8CVO  
 Marlow Rupp ----- N8AAW  
 Howard Schaefer ----- WA8SSJ  
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 Raymond Shetrone ----- WA8WFL  
 Richard Smith ----- WA8VCV  
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 William Wolfel ----- WD8PCD  
 Thomas Yost ----- WD8QCI  
 David Young ----- W8BJI  
 Paul Zvada ----- WA8HJH

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## FCC Pushes for Broadband Over Power Lines

by Anne Broache

Thanks **Brenda Van Dyke** for forwarding this.

Federal regulators renewed on Thursday their push for a wider rollout of what has been hailed as a viable "third pipe" for the many areas where broadband choices have been limited to DSL or cable modems.

If broadband over power lines, or BPL, takes off, then more Americans, particularly in rural and underserved areas, will be able to plug into high-speed Internet access, and markets dominated by cable and DSL (digital subscriber line) should be forced to lower consumers' bills, members of the Federal Communications Commission said at their monthly meeting here.

The FCC unanimously adopted an order designed to reaffirm and build on the first set of rules issued for the technology in 2004, which had drawn a number of reservations from both inside and outside the industry. The original guidelines focused on preventing the nascent Internet service from causing harmful interference with radio signals that rely on nearby frequencies, such as those commonly used in aviation and in zones near U.S. Coast Guard and radio astronomy stations.

"It is my hope that our rules will allow BPL systems to flourish," FCC Chairman Kevin Martin said Thursday.

The latest order's full text was not immediately released, but a summary version outlines a handful of clarifications. The regulators, for example, shot down requests by the amateur radio community, TV broadcasters and the aeronautical industry to exclude or prohibit BPL offerings at certain frequencies, saying they didn't have enough evidence of interference to warrant the extra limitations.

The United Power Line Council, which represents the BPL industry, applauded the action. "The FCC generally affirmed its rules, which in itself is a victory for the industry," said Brett Kilbourne, the organization's director of regulatory affairs, although he admitted that BPL companies still haven't gotten everything they want from regulators.

Though interest in shuttling Internet access over the electrical grid began years ago, only about 50 such systems currently exist in the United States, and the vast majority remain in the developmental or experimental phase. That's in part because the idea has encountered resistance from amateur radio

operators, who complain that BPL could disrupt their systems and those of public safety organizations if deployed without limits.

But the push for commercializing the technology appears to be growing. Late last year, two companies said they plan to offer BPL to 2 million homes and businesses in northern Texas in the near future, and California regulators this spring gave the go-ahead to test the service in that state.

Investors also have perked up. BPL provider Current Communications Group, which already offers service to consumers in Cincinnati, has received more than \$200 million in financial backing from major corporate players such as Google, the Goldman Sachs Group, General Electric and EarthLink.

"Generally speaking, we're pleased with what the commission did again," Jay Birnbaum, Current's vice president and general counsel, said of the FCC's action on Thursday. "They're trying to do the difficult job of balancing the interests."

Democratic Commissioner Michael Copps said he believed the order strikes an "acceptable balance" but warned that the FCC would continue to keep a close eye on complaints about interference. "This applies with special force to amateur radio operators whose skills and dedication once again proved so valuable in the aftermath of Hurricane Katrina," he said.

In that vein, the latest order sticks to earlier limits on emissions by BPL equipment. It also continues to require certification of such gadgets, and keeps in place a requirement that BPL providers enter information about their offerings in a public database at least 30 days before deploying their goods. The BPL industry had requested elimination of the pre-notification requirement, saying it posed a competitive disadvantage. But the FCC ruled it was critical for alerting public safety officials, amateur radio operators and others who share the spectrum of what's potentially headed their way.

The conditions should be sufficient for now, though TV broadcasters would have preferred to see a complete prohibition on BPL operations in their spectrum, said David Donovan, president of the Association for Maximum Service Television.

"To the extent any situations do arise, we're hopeful we can work with the commission and the BPL providers to make sure that Americans retain

interference-free access to over-the-air television," he said. At the moment, both Donovan and FCC rule makers acknowledged, no BPL equipment operates in the frequency range of concern to the TV industry.

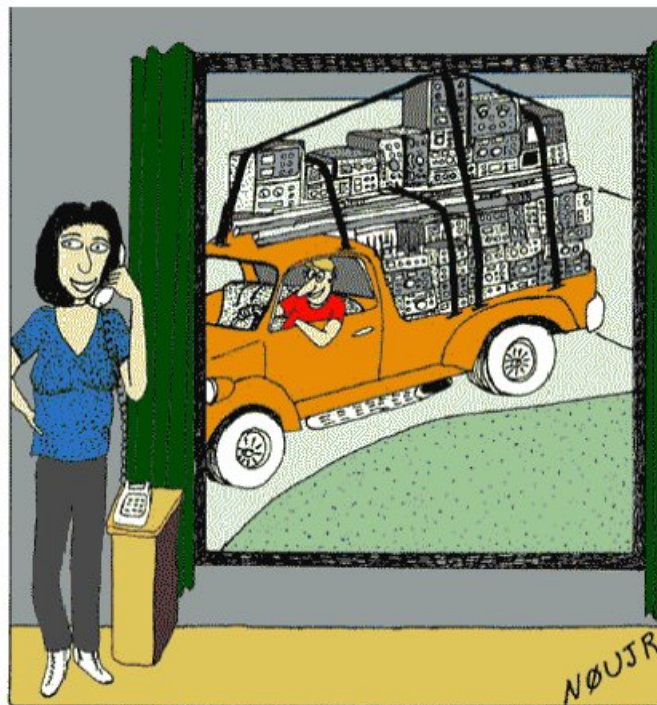
Four of the five FCC commissioners said they'd had a chance to see BPL equipment in action during a

recent field trip to Texas. Republican Commissioner Deborah Tate said she has been continually "struck by the impact this technology could have on reaching our goal of ubiquitous broadband deployment in the United States."

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"Yes I really am running just 5 watts QRP...although I suppose I do have an above average antenna system..."



"No... he went to the hamfest to get rid of a couple of old radios that were cluttering up the place..... Oh I think I hear him pulling in now!"

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