ARRL SPECIAL SERVICE CLUB

DELARA NEWS

Delaware Amateur Radio Association, Inc. **Vol. 26 No. 2** **February 2007**

DELARA meetings are always held on the third Wednesday of the month at the Tri-Twp. Fire Dept. meeting room, beginning at 7:30 P.M. unless otherwise noted.

ALL DELARA members are encouraged to check into the Monday evening Delaware County Net which meets every Monday at 8:00 P.M. on the W8SMK 145.17 repeater. Please join us! NCS call: K8ES

2007 DELARA Officers:

President: Vern Kollas, KC8YOH, 22 Weltergon Dr., Delaware, OH 43015
Vice President: Tim Trombley, K8TAT, 5900 US 42 South, Ostrander, OH 43061
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Newsletter submissions to: Vern Kollas, KC8YOH, kc8yoh@arrl.net
DELARA web site: www.k8es.org

February Meeting

The presentation this month will be given by Jerry, K8RA, on building iambic CW paddles. If you would like to research Jerry's work a little before the meeting, his website can be found at www.k8ra.com. The meeting will be on February 21st at 7:30pm at the Tri-Township fire station's meeting room. If you need directions, they can be found on the club's website that is listed above. Hope to see you there!

THE PREZ SEZ: by Vern Kollas, KC8YOH

Good afternoon to all. As I am typing this, there is about 4 inches of snow on the ground and it is still falling. I hope this edition of the DELARA news finds everyone safe and warm. I really only have a couple of club related items to share with everyone this month, so I will get to it!

First up, Bob,W8ERD, has been working on getting a membership drive going for the club. He has been in contact with the ARRL and they will be sending us mailing labels as well as an electronic copy of licensed hams in Delaware County. He also is working on an information letter that we can mail out with these labels to provide hams in the area with some information about DELARA and what we do. He will be providing us with an update at this month's meeting on how the project is going as well as getting other member's input on the letter and anything else we feel should go out in the mailing. If you would like to assist Bob in this venture in anyway, please let him know at the meeting.

Next, as I am sure most of you are aware by now, DELARA will be holding another Tech license class. This class will be held every Saturday starting on February 17th, with the test held on Saturday, April 7th. There will be NO class on Saturday, March 10th however. The location for the class will be at the new Orange Township fire station in Lewis Center, just off of route 23. If you know of anyone who would like to participate in this class, please have them contact either Gary or Sandy Mackey by sending an email to n8ys@arrl.net.

And one final note, please don't forget that it is that time of year again. That's right, membership fees are due!! Please get your dues to Ken in a timely fashion. Also, please let Ken know if you have any information such as phone number, email address, etc, that may need changed for the roster. This would also be a good time to indicate if you would rather receive the newsletter via email rather than in the mail. As I am sure you are aware, postage is one of the biggest expenses the club has. Please just let us know if you would like to change this.

That is it from the keyboard this month. Hope to see everyone at the meeting next week!

73!

E.C. News: by Don Miller, KB8SIA

After listening to the weather forecasts all day I finally decided to start my column for this month. I sent out the meeting cancellation for the ARES meeting for this month earlier in the afternoon. We will have our next meeting on March 13, 2007 at the Delaware County EOC. Let's hope for better weather at that time.

It looks like we are in for a bad winter storm beginning on Tuesday 2/13. Just to get it on paper I alerted the ARES group to be prepared in the event that we might be called to help out in certain areas.

There isn't much going on this month but we do have some events coming up that I put on the schedule. The first one is for Wendy's Tri / Duathlon on June 10, 2007 at Alum Creek and Fat Rabbit Racing on June 24, 2007 at Alum Creek. There is a 100 mile bike event scheduled for May 28, 2007 but I don't think we will be invited to participate as the event will be in two (2) parts. One (1) before lunch and one (1) after lunch. That would put us in an all day (maybe 10 hours) affair unless we can split up our group. Until I get some definite information we will hold off on this event and not schedule it just yet.

Joe, K8MP and the group are doing very well in organizing the Technician Ham class to commence on February 17, 2007. It will have started by the time you read this. Good luck to the class.

From the ARRL letter come this bit of information *ARRL Certification and Continuing Education course registration: Registration remains open through Sunday, February 18, for these ARRL Certification and Continuing Education (CCE) <http://www.arrl.org/cce>online courses beginning Friday, March 2: Amateur Radio Emergency Communications Level 1 (EC-001), Radio Frequency Interference (EC-006), Antenna Design and Construction (EC-009), ARRL Ham Radio License Course(EC-010), Analog Electronics (EC-012) and Digital Electronics (EC-013).These courses will also open for registration Friday, February 16, for classes beginning Friday, April 6. To learn more, visit the CCE Course Listing page at http://www.arrl.org/cce/courses.html or contact the CCE Department cce@arrl.org.

Talk at you next month. 73.

Joe's Place: by Joe Papworth, K8MP

Howdy, from Joe's Place

Yikes, it's hard to believe another month has flown by. Let's hope this c-o-l-d weather flies by just as quickly.

As I type this (right after the Monday night net) it appears we are all waiting for "The Big One", which is supposed to hit tonight. Remember when we were kids and the anticipation of a big snow storm got all of us giddy inside? Maybe it was because we didn't have to drive in the stuff that made it seem so much more fun. And there was always that possibility of school being cancelled that made big snows a welcome friend, not to mention sled riding, snow ball fights, and making snow angels.

How come "the cold" didn't seem so cold back then? I know…You're thinking the same thing I always say, "Kids can handle it better than older folks."

Did you ever stop to think that maybe it was because our Moms made sure we were bundled up real well before we were allowed outside? Think about what you wear now when it's cold. If you're like me, it's a leather jacket with no hat or gloves.

You think your Mom would have let you out like that on a frigid morning? No way and you know it. Yeah, I know she had quit dressing you when you hit high school age. Those years don't count, because by then, you had reached the age of mature stupidity.
(You know, that age when you know everything and no one else knows anything, especially your parents)

Wow, I don't know what got me on this "Moms and cold weather clothing kick." Although it does sound a lot like a conversation some of us had on 145.17 recently.

Oh well, I guess in some Joe's Place articles I just have to get away from Ham radio. Besides, can you think of a better person to remember than your Mom?
Tomorrow, when I'm watching the snow come down, I'll think of my Mom, and drink a cup of hot chocolate, made like she made it when we were kids.

See y'all next month, at Joe's Place.

NØ Tenna Wizard: by Terry Webb, NØTW

Let's Go Fox Hunting

Ham Radio is so diverse it is difficult to participate in even a small fraction of it. "Fox Hunting" is something that I tried once and later wished that I had spent more time enjoying this aspect of Ham Radio.

Like many aspects of ham radio, Fox Hunting has a practical side – locating offending signals and illegal operators, in some instances.

Fox Hunting makes an interesting demonstration for Boy Scouts at JOTA events and is something DELARA may want to include in future events. ARRL has an article on their website entitled, "Rapid RDF, An Introductory Scouting Activity", and I encourage you to read it.

So what part do antennas play in Fox Hunting? The antennas used allow bearings to be developed between the signal source (aka "The Fox") and your receiver. By moving your receiver and/or rotating your directional antenna, bearings to the signal source are determined. In the case of multiple stations who are tracking the signal, triangulation of these bearings narrow down the area where the signal is originating.

Having a map of the area and a compass are important tools while fox hunting.

When getting close to the signal source, several options are used to reduce the signal strength including: rf attenuators, antennas with less gain and interferometers.

You may have heard of "Orienteering"? This is a variation of Fox Hunting where participants are on foot and must traverse various barriers to locate the signal. Thus, orienteering combines physical activity with RDF principals and has even grown to international competition levels with entrants from various countries.

Back to my first and only exposure to this sport. Our fox was a crafty fellow as he decided to hide underneath a big water tower and bounce his signal off the bottom of the tower. Due to the size of the reflective surface and the strange angles that the signal took, it required some effort to find the fox. But, unlike the animal version of this event, RDF fox hunting requires the target to remain stationary once they start transmitting.

So, hopefully you will get an opportunity to participate in a Fox Hunt sometime in your ham career. The skills honed in fox hunting are used to locate stolen ham gear, illegal operators, and offending electrical transmissions.

On a personal note, Marilyn and I will be leaving OH for FL on Monday March 5. We have our temporary residence reserved while we build our new home. I'd like to thank DELARA for all the fun I have shared with its members and to extend an invitation to any of you to drop by and pay a visit if traveling through the panhandle region of FL.

I hope that I have encouraged you to try various antennas in developing your skills in Ham Radio. I will hopefully be able to talk with some of you via "hf" as soon as our house is built and antennas are hoisted.

Until then, continue to have fun with this hobby and share it with other potential hams.

CU On the Bands, Terry N0TW

Articles Wanted:

So, you get your latest edition of the DELARA news and you see this blank spot at the end. You ask yourself, "I wonder what could go here every month??" The answer is simple, you can submit an article. All it takes is a few minutes to write up a short article that is about ¾ of a page or so in length about a ham radio related item that others in the club would find interesting. Maybe it is a quick guide to remind folks how to access the IRLP node (sorry Gary), or about a new mode you have be playing with. Heck, you don't even have to submit something every month if you don't want to. Please give it some thought, as it is a neat way to contribute your knowledge back to fellow club members. So remember, your article could be HERE next month.

Current: It will kill you if you are not careful by Don Miller, KB8SIA

I remember as a kid some of the foolish things we did in electricity shop in school. What would a Tungar Battery Charger do with the battery cables clamped to each thumb? Would it really make you tell

the truth about something? If you really believe that and the control knob (a big black one) was turned up another notch you are **dead** wrong. Please read on.

What determines the intensity of the electrical shock to the human body? --- Why current of course and whether it is passed from one hand to the other, finger to finger or from hand to foot. (worst case would be through the chest)

According to studies there are basically three (3) fundamental principles related to electrical shocks. They are 1. Perception, 2. Let go current, 3. Ventricular Fibrillation.

Given- if a 60-hertz current is increased from zero (0) the following will be noted:

PERCEPTION current comes into play between .5 milliamps and 2.0 milliamps. This is a tingling sensation and really is not lethal but an involuntary movement of a muscle and could result in an accident.

LET GO CURRENT is between 5.0 milliamps and 25 milliamps and can be described as painful with contraction of the muscle. It is the maximum current at which a person can release an electrical conductor by using that same muscle that is being stimulated by that current. The freeze effect is produced when the current is slightly increased above the let go current (about 35 to 40 milliamps) and the person cannot release the conductor due to muscular reaction. This current can stop ones breathing if the path is through the chest. In other words hand to hand.

FIBRILLATING CURRENT comes into play between 50.0 milliamps and 200.0 milliamps. It has an effect on the heart known as Ventricular Fibrillation if the related shock lasts a second or more. This is a rapid uncontrolled series of heart muscle contractions and usually results in death within minutes unless proper resuscitation techniques are applied immediately.

The skin resistance of the human body is not a fixed value for all people or conditions. It will vary from a few hundred ohms to thousands of ohms. It depends on internal and external moisture present. For example, perspiration greatly reduces skin resistance. Internal body resistance can be extremely low compared to skin resistance.

The body actually represents an A.C. impedance since it also contains a capacitive quantity rather than being purely resistive. The accepted electrical circuit of the human body impedance consists of a 1500-ohm resistor paralleled by a .15 microfarad capacitor. This RC combination offers 1500 ohms of impedance at 60 Hertz but less at higher frequencies.

We must remember that the body impedance is not a fixed value for all people and conditions and that the impedance is not sufficient to prevent a fatal level of current flow from say a 120-volt source.

Continuing on, let's do some math and comparisons. Assuming the body (1500 ohms) is the total impedance of a 120-volt A.C. closed circuit. Therefore **I = E/Z, I = 120/1500, I = 80 milliamps.** Compare this value of current with the Let Go Current and Fibrillating currents discussed earlier.

Just what is all this information leading to? To make you think a little bit before jumping into a situation that could be dangerous.

Going back a few years there was the pre-polarized outlet where two (2) slots of the receptacle and the blades of the plug had the same physical dimensions. Then came the polarized outlet where two (2) slots and blades of the plug have different physical dimensions. This was the first keyed A.C. power connection. Then came the second generation of keyed A.C.power connections called the grounded and polarized outlet where connection can be made only in one direction. Due to the grounding pin it will not fit the outlets previously mentioned.

Now if everyone did their job properly all would be fine and dandy but receptacles can be and sometimes are miswired such that their polarities are incorrect and/or their grounds are non-existent or in adequate. This hastened the advent of the Ground Fault Circuit Interrupters (GFCI). But they to can be wired wrong especially at different places in the receptacle string.

It is now imperative to be all the more cautious when around equipment especially with the skins off. Make sure you know what you are doing. Make sure power is off on the unit you are working on. When working on live equipment keep one hand in the pocket. Above all make sure you equipment is properly grounded. It would be nice to have all of you around for awhile and not meet some untimely end.

Some of above information courtesy of G.E. Pub.#31-7676