



# The Wave Bender

April 2011



## PRESIDENT'S QST

Hello everyone. How about all the members bring a friend who is a Ham or is interested in Ham Radio to the meetings. We have some from the H&G Show that showed an interest in Ham Radio. Everyone that has a license can get on HF. The bands are getting a lot better. I have worked 20 new countries in the last 2 weeks. Even 10 meters is getting better. In a short time, there will be Field Day, the Tour of the Valley and the Hartzel Run. We have them to look forward to again. The TOV will require more communicators this year.

It is time for the membership to let the board know what they want to learn, build or ???

You name it and we will try to get it handled. There is not much time to upgrade to General with the old question pool. It changes on July 1, 2011. If you are not having FUN, we need to know that also. Lets make this the best radio club in the valley.

Till next month.  
73 Allan, AB8AA



Bring your PC or a Thumb drive to the next meeting for some information on FLDIGI



**Officer's Meeting:** April 17, 7:00P.M.  
At the Avnet's, 2050 E. South Range Rd.  
New Springfield (330-549-3051)

**Regular Meeting:** April 19, 7:00 P.M.  
Davidson's, in Cornersburgh

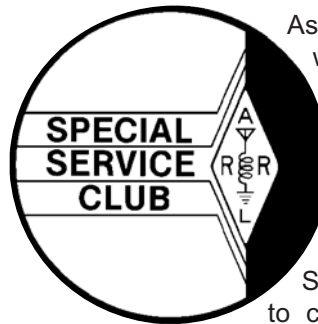
**Program:** KD8JMO will be telling about his 15,000 mi motorcycle trip from Key West to the Artic Circle

### 2011 Officers

**President:** Al Avnet AB8AA      ab8aa@arrl.net  
**VP:** Roy Haren KD8IJF      harens@juno.com  
**Secretary:** Jane Avnet K8JAA      k8jaa@arrl.net  
**Treasurer:** John Fabry KC8SPF


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 Russ Williams KD8LDY  
                                  russellwhoknew69@aol.com  
 Steve Fabry KC8SOY, kc8soy@yahoo.com  
**Social:** Maureen Stein KD8NXS  
                                  mfstein@zoominternet.net

## WE ARE NOW AN ARRL SPECIAL SERVICE CLUB



As an ARRL Special Service Club, we have met our agreement to develop our skills in the specified areas during the past year in accordance with the guidelines in the Active Club On-Line Primer. With this application we apply for renewal as an ARRL Special Service Club for the year to come. We have worked closely






with our Affiliated Club Coordinator throughout the year. Recently we have discussed our successes and problems during the past year, reviewed our current strengths and weaknesses and agreed on an acceptable program for the coming two years.



As an Amateur Radio Operator you may serve your community in a time of need as you never imagined.

Sign up today and soon you can experience what being a Ham is all about.

**When All Else Fails AMATEUR RADIO**

The YGS was a lot of FUN! If you were not there you missed a FUN event. We set up the booth on Thursday afternoon. The tower trailer was set up behind the building with a CC R5 on it. We then ran the coax across the ceiling to the booth. A table was set up with all the information and handouts. Another table was set up for the radio and laptop. We also had a shelf unit where we put on display an old Heathkit 2 FER, the award for the newsletter, an electronic photo frame, and our SS Club certificate.

Friday started out slow, with a few people stopping to ask what we were doing. Some stopped to look at the monitor and then would ask what it was. We had a computer and radio set up running PSK31. Others would just stop look and then walk away. One person stopped looked and then walked away, about six times, when asked if he wanted any information, he just said no and left.

The evening saw more people *Continued page 4*

MY FIRST CW CONTACT



I thought the old saying "You can't teach an old dog new tricks," was pretty much etched in stone. Well just to prove myself wrong, I started to learn a new language. Oh, not a new language in the true sense of the word, but every bit as challenging. A language where you don't have to worry about accents or inflections of the voice. You actually let your fingers do the talking. That's right, Morse Code, or as it is more commonly known in Ham circles as CW.

Well I'm 60 years old. I've only been a Ham for two years and the thought of learning CW kept me out of the hobby for quite some time. When I found out that CW was no longer required to become a Ham, I jumped on the band wagon. I took the Tech. class and really started getting into it. So much so, when I took my Tech exam and passed it. I also took the General exam and passed it on the same day.

My Uncle, Roy KD8IJF, has never taken any credit for getting me interested in Ham Radio, even though he did. He was very supportive and we went to every Hamfest that came along. I finally found an older ICOM HF radio I could afford. I took that radio home and hooked it up to a simple G5RV antenna. Just listening at first. I would spin the VFO knob and hear Hams talking on Nets, DXing and Morse Code. It wasn't long until I got up enough nerve to try and make a contact with voice. Things were slow going into this unknown world, but I kept plugging away. One contact, then two more, ten more - East coast, West coast, Canada! That first day on the radio was amazing, 50 contacts! The next day I sat down at my radio, turned on the power and let it warm up. On 20-meters I heard two Hams discussing a home brew antenna. I waited until there was a lull in the conversation, keyed my mike to give my call sign, "KD8LDY listening" I said. No response. Again "KD8LDY listening." One of the Hams keyed his mike and said, "Sounds like one of those NO CODERS." I was crushed. Sat there dumbfounded. Didn't know what to say. I mentioned this incident to several friends. For the most part, all their answers were the same. Is code required by the FCC? NO. So don't worry about it. But, I couldn't stop worrying about it. I thought, the nerve of some people.

Five months later I upgraded to Amateur Extra. A good friend, Dave WB2DFC gave me an Iambic paddle CW key. Not wanting to waste an opportunity like that, Morse Code here I come. Like the man who was asked how to get to Carnegie Hall.

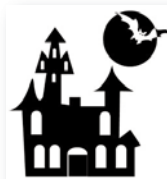
His answer was "practice, practice, practice." Well, practice I did. I used WEB sites, CD's, and listened to CW on the radio. When my second Field Day came, I was part of the CW team. A very Small part. Five or six letters and words strung together at 25 words per minute were like a foreign language to me. I was supposed to be logging for the operator. I said, "what was that?" Someone else took over at the logging position. The rest of that weekend I practiced, practiced, practiced. Never say die - "Damn the torpedo's full speed ahead." You get the idea.

All of that has led me to this. Two weeks ago setting in my Ham Shack, listening to CW on the 20-meter band, I started sending CQ, CQ, CQ KD8LDY calling any station in CW. I listened for a moment and repeated - CQ, CQ, CQ KD8LDY calling any station. Silence, a deafening silence. Then I heard my call sign being keyed very slowly along with another call and the words "new ham?" I couldn't believe my ears. "YES" I keyed. "Will go slow" he keyed. "QTH" I keyed. "NJ 20mi N of ATLANTIC CITY" was the answer. I had just made my first contact using CW. No longer a NO CODER. You bet your a\*\* I'm not!

**Russ Williams KD8LDY**



OCT. 2010's HAUNTED HAYRIDE



Recap of the Boardman Haunted Hayride, by **Bill Egan, KD8HCQ**, held last Oct. 15 and 16 - I have been doing this event for over ten years for the 4-H kids. We have about 10 4-H clubs that participate, which adds up about 80 to 100 kids in the woods for three weekends. The first weekend has pumpkin carving for the little kids in grade school.

Originally one other person and I went all over the park trying to keep the kids safe from harmful people that might come into the park to bother the kids.

We now have people from the local Ham clubs that come out and help protect them. In the last year or two we have caught over 15 people, and escorted them out of the park. We do have a lot of fun out in the cold, and to hear people complain about it. Thanks to these Hams who came out to help with this event:

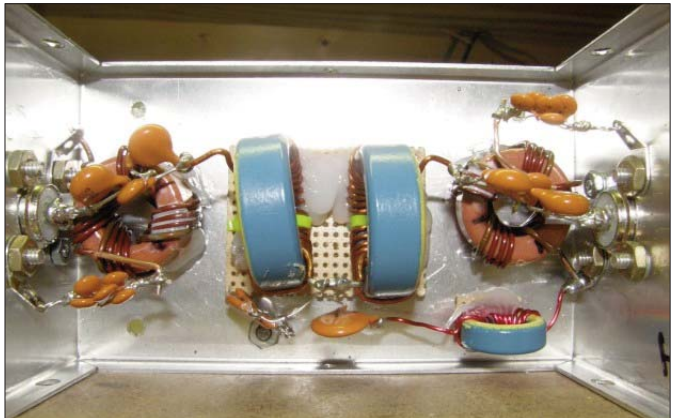
Allan Avnet	AB8AA	John Curea	KG8BC
Bill Egan	KD8HCQ	Kevin Stein	KD8NXR
Brandon Benson	KD8NXP	Maureen Stein	KD8NXS
Darrin Cannon	N8DMC	Rich Hamaker	KB8YHC
David Armock	KD8NJQ	Roy Haren	KD8IJF
Doug Sage	KB8TPG	Russ Williams	KD8LDY
Jan Hamaker	KC8PUO	Steve Fabry	KC8SOY
Jeff Hoefle	KC8HSE	Ted Filmer	KD8IJE
Jim Sekinger	KC8HSD	Wanda Sekinger	KC8VCT
John Douglass	KB8JVW		

The above Hams represent five clubs, all working together, from Columbiana, Mahoning, and Portage Counties. - ed

LAST BPF ARTICLE

This is the last article for the Triplexes and Band Pass Filters. Now that the BPF's have been finished, it is time for the whole story. If I had to do it all over again I would have just purchased them. I had not idea what I was getting into when I started. There was the winding of the toroidal cores. I had wound some small cores before but nothing like these. Once I had figured out how to do it then it was simple. Then I started to tune them up. It is not as simple as adding one capacitor for each toroidal core. In order to arrive at the required capacitance it required several capacitors in series and/or parallel combinations. It did take between nine and twenty capacitors per filter.

set of capacitors on the left side tunes the output to 50 ohms. The top set of capacitors tunes the input to output circuit. This one took nine capacitors to tune it up.

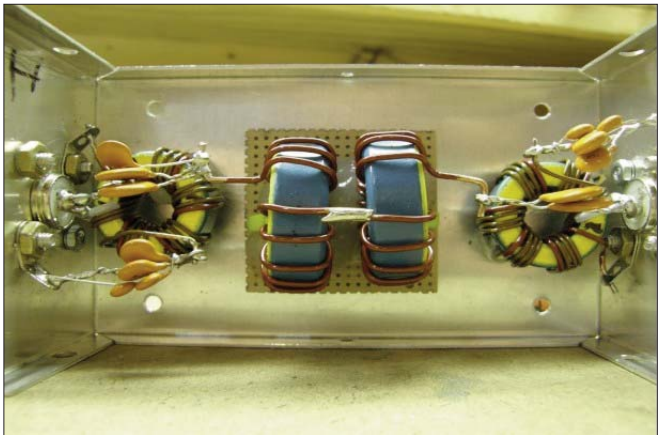


This is the 10-Meter BPF. The right side is the input (transceiver) side and the left is the output (antenna) side. The top set of capacitors on the right side tunes the input to 50 ohms. The lower set of capacitors tunes the input to output circuit. The lower set of capacitors on the left side tunes the output to 50 ohms. The top set of capacitors tunes the input to output circuit. This one took 20 capacitors to tune it up. This BPF also has an additional Core to tune the center of the two center cores.

It also takes some special equipment that I do not have. So at that point I sent them off to the Ham I was working with to get them built. He took them and did all the work to get them setup perfectly. Then sent all of them back to me.

Now all that is left is to use them. There is only one warning on the BPF's. **DO NOT GO OVER 100 WATTS. !!!!!!!**

73 Allan, AB8AA



This is the 20-Meter BPF. The right side is the input (transceiver) side and the left is the output (antenna) side. The top set of capacitors on the right side tunes the input to 50 ohms. The lower set of capacitors tunes the input to output circuit. The lower set of capacitors on the left side tunes the output to 50 ohms. The top set of capacitors tunes the input to output circuit. This one took 13 capacitors to tune it up.



This is the 15-Meter BPF. The right side is the input (transceiver) side and the left is the output (antenna) side. The top set of capacitors on the right side tunes the input to 50 ohms. The lower set of capacitors tunes the input to output circuit. The lower

**Join us for the Friday night  
WRARC Net  
9:00 P.M. on 145.270, PL -110.9  
This is a directed net, with all  
interested members taking a turn  
at Net Control**

**April 1 - KC8WY Dave  
April 8 - AB8AA AI  
Contact Steve KC8SOY to join  
the fun 330-774-6346 or  
kc8soy@yahoo.com**

**First Wednesday of the Month  
the Mahoning County  
ARES/RACES/Skywarn training net  
is held on the W8QLYrepeater  
146.745 (-) at 8:30P.M.**



**HOME & GARDEN SHOW - CONTINUED FROM PAGE 1**

and there was more interest in what we were doing.

Johnnyjukebox had the booth next to us showing off the whole house vacuum system and his sound stuff. There was a lot of kidding around back and forth between the booths.

Saturday started with a lot more people coming by the booth. We had several people show an interest in Ham Radio. Several asked about how to get into Ham radio and will there be classes. Some people would stop and comment that they thought that ham Radio had gone away with the use of cell phones. Some people would stand in front of the monitor and just watch the data flow across the screen. We spent time talking to hams and non hams about ham radio the club.

Sunday was a short day, but it was busy. There were many people, which made it FUN to be there. As soon as it closed up, we packed everything up and went home. Overall, it was a FUN weekend.

I want to thank all the people that came to work the booth. They were the following members: **KD8LDY, KD8IJF, KC8SOY, N8DMC, K8JAA, AB8AA, KD8IJE, KC8SPF, KD8NXS, KD8NXR, KB8QDZ, KD8OXJ**, ----- everyone had FUN. **AB8AA**

**Ohio State QSO Parties 08/27/2011**

**HAMS CONCERNED ABOUT LOSING BAND**

[http://www.usatoday.com/money/media/2011-03-29-hamradio29\\_ST\\_N.htm](http://www.usatoday.com/money/media/2011-03-29-hamradio29_ST_N.htm)

*By Didi Tang and Malia Rulon, USA TODAY* - Ham radio enthusiasts nationwide are concerned about a bill in Congress that they say would limit their ability to help in disasters and emergencies.

Rep. Pete King, R-N.Y., chairman of the Homeland Security Committee, introduced legislation last month aimed at enhancing emergency communications for first responders by reallocating certain frequencies exclusively for public safety.

To offset lost revenue from that change, the bill includes a provision that would allow the 420-440 MHz frequencies currently provided free to amateur radio to be auctioned off.

Those frequencies are used not just by hobbyists but also by hundreds of thousands of Amateur Radio Emergency Service volunteers and severe-weather spotters working with National Weather Service.

"They are a critical component of the National Weather Service's job to protect life and property," said Steve Runnels, a warning coordination meteorologist with the National Weather Service in Missouri.

It's a bad idea. It's not good for public safety," said Harlin McEwen, chairman of a technology committee for the International Association of Chiefs of Police and a spokesman for the National Public Safety Telecommunications Council.

The frequencies set aside for first responders in the bill became available after the digital transition from analog television broadcasting. The Federal Communications Commission was going to auction off those frequencies. The White House calculates the cost of reallocating them for first responders at \$3.2 billion.

King stressed the importance of following a 9/11 Commission recommendation to develop a national wireless network for first responders.

"America's first responders, including law enforcement officers and firefighters, these front-line heroes still do not have a national interoperable public safety wireless broadband network," King said.

He added that efforts are underway to address concerns of ham radio operators and others.

**NEWINGTON CT MARCH 29, 2011**  
**TO ALL RADIO AMATEURS**  
**ARLB011 NCVEC DELETES QUESTION FROM**  
**AMATEUR EXTRA QUESTION POOL**

Due to the FCC revising the rules concerning Spread Spectrum, the Question Pool Committee of the National Council of Volunteer Examiner Coordinator (NCVEC) has decided to delete a question from the Amateur Extra class question pool. According to QPC Chairman Rol Anders, K3RA, when the Spread Spectrum rule change goes into effect, the answer to question E1F13 in the Amateur Extra class question pool will no longer be correct.

In March 2011, the FCC -- acting upon a 2006 Petition for Rulemaking filed by the ARRL -- eliminated the requirement that amateur stations transmitting Spread Spectrum use Automatic Power Control (APC) to reduce transmitter power. At the same time, the Commission reduced the maximum power of a Spread Spectrum emission from 100 to 10 W PEP.

Anders encouraged those who administer Amateur Radio license exams to remove question E1F13 as soon as possible, but advised that it must be removed when the rules change goes into effect. The changes to Sections 97.311 and 97.313 of the Commission's Rules will be effective 30 days after the Report and Order is published in the Federal Register. The current Amateur Extra class question pool is effective through June 30, 2012.

## OHIO TENTH DISTRICT ARES EC OF THE YEAR

Ohio ARES Tenth District is blessed to have some of the most energetic volunteers I have ever come across. Most of the volunteers in the district keep giving with no expectation of anything in return. It's time we start recognizing the individuals who make a difference. Several months ago, I asked the the leadership in district 10 to submit nominations for Emergency Coordinator of the Year. Why? Because sometimes amateur radio can be a thankless hobby. It takes commitment, patience, perseverance, dedication, and motivation to be an Emergency Coordinator. Most people who "volunteer" to be an EC get a reality check of what the job really entails. The ARRL job description only lists the duties and responsibilities. It does not say it takes time away from work, family, and friends. It also doesn't say there is a life outside ham radio.

The days of accepting an ARRL position just for the title and the cool ARRL badge have been over since Tenth District was formed. In today's day in age, county ARES teams need a strong Emergency Coordinator. They need someone who knows how to lead but never forgets how to follow. County ARES teams need someone who is not only reactive but proactive. They need someone who not only understands but also lives by the concept of failure to plan is planning to fail. They need someone who knows how to manage people but never a micro-manager. County ARES Teams need someone who knows how to coach without being a boss.

I am sure you will agree with me the selected EC exhibits all of the above. It is my distinct pleasure to announce the ARES Tenth District 2010 Emergency Coordinator of the Year. The EC of the Year award goes to...drum roll please...(WRARC member) Jim Aylward KC8PD of Ravenna, Ohio.

I have included the two submitted nominations from Jim's peers below for your reading.

I would like to nominate KC8PD, Jim Aylward for EC of the year for several reasons, Jim has brought ARES to a viable volunteer entity in a county where ARES has been virtually nonexistent for many,many years. Jim Aylward tirelessly provides pertinent training on our bi-weekly nets as we sustain 25 check ins on average per net. Jim has initiated and promoted digital and D-Star operations for local Emcomm operators and all Amateur radio operators interested in learning these technologies. Besides Jim's duties as Portage County RACES Radio Officer and Army MARS Operations Officer, Jim strives to keep ARES members interested and involved with traffic handling and interaction with members, (i.e.) question and comment portions of the nets.

Hands down, EC of the year should be KC8PD, Jim Aylward. He has done more to make ARES of Portage County a real operation as opposed

to a claim that something exists where it does not. Jim is not the kind of leader who says "do this" and then does not show up himself - he is always there. In the past year Jim has reached out on behalf of ARES and been accepted to provide comm support for the Mantua Potato Stomp - a long standing Portage County event that until last year didn't realize there was a local group that could assist. They were elated with our participation! Jim has also spearheaded the proliferation of digital modes operation in Portage County ARES. Our ARES nets have actual training in each net, usually presented by Jim.

Jim will receive an award certificate suitable for framing and a \$50.00 gift certificate to Amateur Electronic Supply donated by the DEC.

Please join me in congratulating Jim!

*73 de Matt W8DEC  
District Emergency Coordinator  
ARES Tenth District - ARRL OH Section  
Committed to Excellence Through Professionalism  
www.ohioares10.org  
www.facebook.com/aresdistrict10  
w8dec@ohioares10.org  
440-336-0295 (text messaging ok)*

**In order to succeed, your desire for  
success should be greater than your  
fear of failure....BILL COSBY**

## DIVISION AWARDS ARE OPEN FOR NOMINATIONS

The Great Lakes Division makes six special awards available to Great Lakes Division members at each biannual convention. In addition, the Director typically provides special Director Awards to members who have performed particularly notable service to the public, Amateur Radio or ARRL. The awards that are open for nomination are:

- \* The George S. Wilson, III W4OYI Lifetime Achievement Award
- \* The Great Lakes Division Amateur of the Year Award
- \* The Great Lakes Division DX Achievement Award
- \* The Great Lakes Division Young Radio Amateur of the Year Award
- \* The Great Lakes Division Technical Achievement Award
- \* The Great Lakes Division Joseph J. Phillips, K8QOE Newsletter Award

Previous winners of the awards can be seen at <http://arrl-greatlakes.org/> by clicking on AWARDS at the left side of the opening screen. The criteria for the awards may be found by clicking on AWARDS CRITERIA at the top of the succeeding page. Nominations will be accepted through 1 August and should be directed to Scott Yonally, N8SY at [n8sy@arrl.net](mailto:n8sy@arrl.net). Attendance at the Convention is free with the purchase of a Findlay Hamfest ticket.

## UNDERSTANDING FLDIGI FOR EMCOMM USE

By Andy O'Brien K3UK

ARES EC, Chautauqua County, New York

This brief article is intended to explain Fldigi and its use in emergency communication, mainly for those who have no clue what it is, or what is done with it.

Within the past few months, the use of Fldigi by radio amateurs involved in emergency communications has risen sharply. The average ham that uses HF digital modes is probably quite familiar with Fldigi, since it's been developed over the past few years and has joined Multipsk, Winwarbler, DM780, and MixW as a common application for digital operations. Listening to comments from some Emcomm hams, it appears some have misconceptions about what Fldigi is. Within the past few weeks, I have heard some describe Fldigi as a new "mode," I also heard some recently described Flmsg as a "mode." Today, I heard someone on the air say that they needed to start a Fldigi node in their county. I have also heard a few references to NBEMS as a "mode." So, I thought I would write a few words for those who have no clue, make it a little easier to understand.

Fldigi is a multimode digital application that has versions that work under Windows and Linux. In many respect, Fldigi is no different from Multipsk, Mixw, and DM780. It is an application that allows the ham to have QSOs using common digital modes like PSK31 and RTTY. It also has an extensive list of other, less common, digital modes, e.g., Olivia, Feld-Hell, MT63, THOR, Domino, MFSK16 and many more. The majority of Fldigi users use it for plain digital mode rag-chews and DXing. Within the past 3-4 years, Fldigi has gradually added some extra features that have excited the radio amateurs that provide emergency communications. Note. These are "extra" features, not really extra digital modes. The extra features started with a few new concepts in Fldigi. A concept called NBEMS (Narrow Band Emergency Messaging System (See <http://www.arrl.org/nbems>.) NBEMS essentially added some point-to-point email and file transfer capability to existing digital modes. A special type of error correcting process was added using ARQ concepts. Thus, the ham could use common modes like PSK31, or MFSK16 in ARQ mode to send email, or text files. Like other ARQ modes, this involved sending the message and having the other station confirm reception of blocks of the text. So, this station and may others around the world had the capability to establish a QSO and send text error free. No new modes involved, just using what we normally use for everyday digital chats. No "nodes" are used, in fact those behind the project were opposed to the concepts of nodes that transmit frequently while unattended, The NBEMS FLARQ methods just needed a

regular QSO to pass "traffic." As many hams began to experiment with Fldigi for Emcomm operations, the Fldigi software began to add features based on the input of hams, especially groups in South Carolina and Western Pennsylvania, who held extensive experimental nets both on HF and VHF/UHF. In the past year or so, Fldigi added the capability to format text in a manner useful to MARS, RACES, and ARES members. The significant development was the addition of an adjunct called FLMSG. This seamlessly integrates with Fldigi and enables the hams to format text in a variety of ways common to Emcomm. Specifically: NTS message templates, and many FEMA/NIMS message formats.

So, Fldigi employs regularly used digital modes to transmit messages created in FLMSG. No special modes, on the contrary, almost any digital mode in common use can be used. Some modes are better than others under varying conditions. Some modes are very fast, some are very slow. The slow modes may not be very effective if large text files are being transmitted. ARQ modes in particular seem to slow down a lot due to all the "acks" and repeats requests. The fast modes are sometimes not very accurate if a band is noisy or in poor shape. In non-ARQ modes message like "Watson, come here," may get decoded at the other end as "Hatsxn, come herm" or perhaps "Matson come here." So, based on input from users, and clever programming by the Fldigi development team, they added a method of devising a check-sum for messages being transmitted. If the receiving station compared the check-sum, they would know that the received message contained errors and could as for a repeat. This allowed the sending of a complete message without getting bogged down with ARQ-type repeats and acks. This method involved the use of the WRAP file system and was incorporated into another Fldigi add-on . . . Flwrap.

Just to get everything clear, the above means that the multimode application, Fldigi, still did its usually digital mode rag-chew applications . . . but it also has the ability to send messages via modes like PSK31, PSK250, MFSK16, MFSK32, in ARQ mode, or files in "regular" mode, with a check-sum, using any of the aforementioned modes, plus others like MT63. So if I wanted to send an emergency message and had Fldigi at my disposal, I take the same software I use everyday, use the same modes I use everyday, but I can add a few extra twists for accuracy, ARQ or WRAP messages. I do not look for known "nodes" or "server" stations. In Emcomm work I will usually use prearrange sections of the HF band, or known repeaters.

The Western PA and South Carolina hams experimented with both HF and VHF/UHF use of digital modes. They knew that digital modes work well on a noisy HF band. They also deter-

*Continued page 7*

## FLDIGI - CONTINUED FROM PAGE 6

mined that, just like packet radio on VHF/UHF, the relatively noise free VHF/UHF bands provided an opportunity to use several digital modes at higher speed. Using wider bandwidth just like the old packet days when 300 baud packet was boosted to 1200 baud on VHF. They also discovered that some modes, like Olivia and MT63, did quite well when simply holding a hand microphone to a speaker. Thus. In an emergency, some messages could be sent without extra equipment like a sound card interface.

So, how does all this work for the ARES/RACES? The many uses of Fldigi work best if the average ARES/RACES member uses digital modes on a regular basis, using the modes for "fun," rag chews, and information exchange via local nets or simple QSOs. In the average RACES or ARES "drill," it is likely used to supplement voice communications, not replace them. Digital modes are likely used when an ARES/RACES station has already established voice communication with a desired target station (e.g., an EOC or shelter). During the event an agency may request that RACES/ARES send information that is very detailed, and accuracy is very important. Via voice, to ensure accuracy, NTS-style radiograms could be used effectively but the dictation speed needed for accuracy will slow things down quite a bit. If voice is the only means available, it will still work well, but the ability to use error correcting or error checking digital modes will greatly assist the operations. So, in a real situation, the ham station may be having brief voice communication with an EOC or shelter and then decide to send an ICS-213 or Red Cross 5266 form via a digital mode. Fldigi gives you a very wide array of choices as to which digital mode will be used. The most common used are Olivia, MT63, or PSK. You would decide based on what conditions you are faced with and what mode you are "comfortable" with. If you use these modes as a regular part of your amateur radio operations, you will become quite familiar with the advantages and disadvantages of each mode. Olivia 500/8 is slow but very effective on HF when conditions are very poor, MT63 1000 (long interleave) is quite fast and also works well on a noisy HF band. MARS stations use MT63 a lot. MT63 2000 and PSK 250 or PSK500 work very well at high speeds on VHF or UHF. So the correct language for the Emcomm ham to use is . . . not that they are using "Fldigi mode" . . . they are using MT63 mode or PSK mode, or Olivia mode. They are using the Fldigi software to transmit and receive communication via several modes.

Anyway, let's get to the situation where that served agency asks the hams to send an ICS-213 or Red Cross 5266 (or any other information in text for-

mat). In this era of laptops or desktop computers, it is likely that the served agency has this information on their computer. They can simply give that file to you via a thumb drive, or some other file transfer method from computer to computer. You, the hams extraordinary, can bring up Fldigi on your computer, import the Red Cross form or ICS form, choose which digital mode you and the other station(s) are using and transmit the form. You will have also decided whether you are sending as a check-sum encoded "Wrap file" or using NBEMS recommended modes that use ARQ methods. The thinking nowadays is that the Wrap file method is quicker, even if a re-send or two is required due to a bad checksum. By the way, if the served agency does not have an ability to give you the information from an already typed document, Fldigi with FLMSG allows you to type it yourself and then transmit it, all in the correct form format.

Any questions, feel free to ask via [k3uk@arrl.net](mailto:k3uk@arrl.net) or [k3uk@winlink.org](mailto:k3uk@winlink.org). Also consider using the following Yahoogroups and ask more questions:  
<http://groups.yahoo.com/group/digitalradio/>  
<http://groups.yahoo.com/group/panbems>  
<http://groups.yahoo.com/group/win-fldigi/>  
<http://groups.yahoo.com/group/NBEMSham/>

You can also see youtube videos of Fldigi:  
<http://www.youtube.com/watch?v=SWZ2vKWSiIE>  
 (Setting up MT63 for FM use)  
[http://www.youtube.com/watch?v=-r\\_62rX1GPM](http://www.youtube.com/watch?v=-r_62rX1GPM)  
 (RSID with NBEMS / FLDIGI - Advanced Settings for Unmanned Monitoring Stations )  
[http://www.youtube.com/watch?v=IG6\\_-wli1E0](http://www.youtube.com/watch?v=IG6_-wli1E0)  
 NBEMS FLDIGI WRAP Checksum Demo  
<http://www.youtube.com/watch?v=gfYXneVlrCo>  
 demo of MT63 on a repeater with Tigertronics interface  
<http://www.youtube.com/watch?v=4J-e7u4wxmc>  
 Fldigi with ICS-213 form  
<http://www.youtube.com/watch?v=PWCufvaEwS4>  
 PSKMAIL

Andy K3UK

Other articles by K3UK?

The Complete Bozo's Guide To JT65A

The Quick and Dirty Guide to Digital Modes

The Quick and Dirty Guide to Chip 64

The Quick Guide to WSPR





The Quick Guide to Narrow SSTV

English Help for MMTTY

Deconstructing the Digital Tower of Babel (November 09 QST, contributor) JT65A on HF Bands ( July 07 QST, Contributor )

**Skywarn Training - Fitch High School  
Austintown, April 6, 5:30 P.M.**

# April 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<p>Quote of the Day -                      "Fathom the hypocrisy of a government that requires every citizen to prove they are insured, but not everyone must prove they are a citizen"</p>					<p>WRARC                      Net 9:00 PM                      145.270</p> 	<p>2                      Stark County VHF QSO Party                      Noon-6 PM</p>
3	<p>4                      Happy Birthday                      KC8SOY </p>	5	<p>6                      ARES Net                      8:30 P.M.                      146.745                      Skywarn Austintown Fitch HS                      5:30P.M.</p>	7	<p>8                      WRARC                      Net 9:00 PM                      145.270</p>	<p>9                      Cuyahoga Falls Hamfest</p>
10	11	<p>12                      Eat'n Park Boardman                      8:30 A.M.                      Ham Community Breakfast</p>	13	14	<p>15                      WRARC                      Net 9:00PM                      145.270                      Happy Birthday                      KD8NXR </p>	16
<p>17                      WRARC Board Meeting                      7:00 P.M</p>	18	<p>19                      WRARC Meeting                      7:00 P.M</p>	<p>20                      Test Session EMA                      6:30 P.M.</p>	21	<p>22                      WRARC                      Net 9:00 PM                      145.270</p>	23
<p>24   Easter</p>	25	<p>26                      Eat'n Park Boardman                      8:30 A.M.                      Ham Community Breakfast</p>	27	28	<p>29                      WRARC                      Net 9:00 PM                      145.270</p>	30