



TMRA Amateur Radio Beacon

May 2011



The Prez Sez

Good news this month is that Mike, WA8SYD, and Steve, KC8TVW, held another very successful Technician Class last month – graduating 16 new licensees. Congratulations, and we hope to see you at TMRA meetings and events – and Field Day is coming up soon – see below. As usual, we offer graduates of our classes a complementary membership in TMRA, and I believe that they all accepted.

More good news this month is that we have signed the contract with Owens Community College to hold our Hamfest 2012 there - so barring any unforeseen circumstances we'll be using their attractive facilities for the 3rd time. I don't know what changes there will be to the membership of the Hamfest committee for 2012, but if anyone has any ideas/suggestions to attract new vendors, especially the larger, commercial vendors – let a member of the committee know. If anyone would like to be active on the committee – let me know.

Now that we have the location secured, this year we'll be mailing out letters in the very near future to our larger (commercial) vendors reminding them of the date (Sunday March 18th, 2012) and inviting them to reserve that date for our Hamfest and to reserve their tables at the Hamfest. Hopefully, this way, if they have a choice of Hamfests that weekend, they will consider us first. I realize that by sending out table reservation forms so early, there's a risk that they get put aside and maybe even mislaid or lost – but we'll follow-up with repeat mailings if necessary. When we attend other Hamfest, let's remind vendors there of our Hamfest and invite them to attend. We may never beat our record of a few years ago when we had over 400 tables occupied – but at OCC we have the space for many more than the last 2 years, and still keep the wide aisles that we are famous for and so many attendees appreciate.

Our next event is Field Day: Steve, W8TER is the Chairman again, and he's the one to contact if you want to work a specific band and mode. We're holding it on the grounds of the Electrical Industry Building, where we hold our monthly general meetings. All the facilities one could wish for are there (except trees) – including a huge shelter-house, so no reason for 4 stations to be sharing one picnic table.

The position of Public Information Officer (PIO) for the Club is still open.

73, Brian WD8MXR

TMRA Bus To Dayton

Call Mike, WA8SYD, to reserve a nice comfortable seat on the annual TMRA bus trip to Dayton on Saturday, May 21. You will arrive at the Hamvention® as the gates are opening and leave at closing time. Lots of room on the bus to bring back all the stuff you can buy. You can call Mike at 419-6991390 for more info.

VE Session from Tech class

Congratulations to the following new hams and upgrades, all Techs unless noted:

KD8QBH, James A Swanson; KD8QBI, Elizabeth T Henderson; KD8QBJ, Neil R Duhon;
KD8QBK, Sara A Stearns; KD8QBL, Margaret L Szymanski; KD8QBM, Sonya S Petty;
KD8QBN, Julie A Swanson; KD8QBO, Nancy R Fahle; KD8QBP, Jon R Eberlin;
KD8QBQ, Corie J Ingram; KD8QBR, David A Ray; KD8QBS, Donald R Loesch,(General);
KD8QBT, Caleb J Wood; KD8QBU, Stephen E Wood; KD8KXD, Skeet Kern, (General).

Thanks to all VE's that assisted

Steve KC8TVW
Mike WA8SYD

* TMRA Website Update *

Hello everyone. This is a note to let you know that there have been some recent updates to the website. At a recent general meeting it was expressed that while the website has a wealth of information, some of it might be confusing and not easily accessible, especially for newer hams. Additionally it was expressed that perhaps more could be done by the TMRA to help newer hams out after getting their licenses. With the website being my main contribution to the club I have made an effort to make the website more helpful to newer hams. I then noticed that the website didn't have much information on how to actually become a ham. We have references to "*VE Testing*", but to a non-ham, what on earth does that mean?

On the top of each page in the navigation/links section, I've added two links near the top, clearly labeled, to help. The first is "*How to Become a Ham!*". This page contains a few links to get people information on how to become a ham, while noting that the TMRA has classes and can help. The second link, "*Helpful Info for Newer Hams*", contains a wealth of information directed at things a newer ham can do with their shiny new license (it's shiny if you laminate it, think about it... after a while it doesn't shine much more if you stick it in your wallet, it gets kinda linty, or maybe that just happens to me, but you know...). The page also directs newer hams to specific parts of the website where they can find more pertinent information.

I've also made changes to the home page. Next to the "*Latest Education News*" section, I've added a section for "*Upcoming TMRA Events*". This hopefully is self-explanatory. I've also added a section on the home page for "*Meetings/Events/Nets*". This section contains a list of the major club functions throughout the year, as well as locations and frequencies.

Lastly, on the home page, I've updated the "*Picture Gallery*" link to read "*Picture Gallery/Docs*". In a previous "*Beacon*" article I noted that the software our website uses to store pictures also does a great job at indexing PDF documents (hence the "*Docs*" portion of the link). If you go to the "Picture Gallery/Docs" section of the website, scroll down to the "*Reference/Documents*" section. I've broken this section down into sub-sections to help you find information quicker.

Also new is a list of all previous TMRA *Amateurs of the Year*. This can be found in the "*History*" section of the site.

With all the attention to the digital modes lately, I've also added some additional links on the "*Downloads*" page. If you're playing catch-up, check these out!

I am always open to feedback, suggestions, and comments - e-mail me at *
KJ0EYT@ARRL.NET*.

Scout Camp News

Do you remember as a kid the magic of things you did not understand. When radio was magic. When all the sounds in the night were mysterious creatures in the dark. When the adventure of a lifetime was a week at summer camp.

You can relive that magic. You may not remember the men and women who created those magic time. All you knew was life was good and everything was new and exciting. You can relive that magic by being the adult (our significant other may debate the adult label) in that picture. What you did not know is how much fun the adults were having. By providing the opportunity for kids to experience something we love, radio, you will have fun and sharpen your skills. You will be asked questions you may not have answered in years. You will be asked questions you never thought about. I was once told if you want to truly learn something teach it. The JOTA weekend and Tuesday nights at Camp Frontier at Pioneer Scout camp are excellent opportunities to experience the magic again,

Pioneer Scout Reservation is located west of Pioneer Ohio and is owned and operated by the Erie Shores Council. The reservation is 1,100 acre and is home to Camp Frontier Summer Camp and 2,100 Scouts. The Scouts arrive Sunday afternoon and stay until Saturday morning. During the week the Scouts have the opportunity to experience aquatics, shooting sports, handicrafts, ecology, Frontier Trading Company, extreme sports, astronomy and on Tuesday evening radio. No summer camp is not what it was when we were kids. For more information you can go to www.psrweb.org

Most everything the boys do at camp is in camp. Two exceptions that come to mind are astronomy and radio. At the astronomy area the boys can explore the far flung reaches of space. Through the magic of radio the boys can explore the far reaches of the planet and some of what orbits around it. The amazement on a 12 year olds face when he hears a voice from the other side of the planet is priceless. Sometimes they just want to listen to shortwave broadcast from east Europe. Sometimes they want to talk to a Russian station. I have had to reassure a Scout that we are allowed to talk to Russian people. Again priceless.

As for your operating skills, if things did not work so well week 1 you have 7 more weeks to perfect your setup. By the end of the summer my grab and go is working pretty well. Now no one is saying you need to come out every week, although you will probably want to. All I am offering is the opportunity to relive some of the best days of your life practicing a hobby we all enjoy. Tuesday radio nights start June 21 and run through August 2. A dual band UHF / VHF antenna is in place and a ladder line feed 80 meter dipole. We have a ground system in place and 120 AC power. You bring the rig and bug spray and life is good. I hope to share a enjoyable evening with some of you this summer.

Doug, AB8XW
dugmail@sbcglobal.net
419 475 5599

The TMRA *Amateur Radio Beacon* is published monthly by the Toledo Mobile Radio Association. #229
Editors: Brenda, KB8IUP, (poof-reeder) and Chuck, KB8FXJ.
Email, kb8iup @ arrl.net

Cheap CW Key & Electronic Keyer

Back in the December 2010 issue of *The Beacon* article I explained some of the basics of getting started with CW. At that time I was using my IC-7000 which has built-in electronic keyer functionality and my el cheapo “KJOEYT East Side Key” This works great on HF in "CW" mode... but it's worthless on VHF or UHF FM. The built-in keyer of many rigs will not function in FM mode. In that previous article I noted that Dave, KD8EVN, and I were practicing CW on HF. Well, as time went on, we kept experiencing many Sunday nights where 40M was full of static, making hearing each other (him in Maumee, me in Millbury) very painful. This, in turn, made trying to practice CW very painful. We kept having to do a short sentence in CW then switching to 2M FM simplex to talk voice to each other to cover what we just said in CW to see how we copied. It was slow going. We decided we needed a "clear channel" to practice CW on so we could hear the CW better and not fight HF band conditions. We decided we needed to get moving with CW by using FM on 2M.



In my previous *Beacon* article I mentioned that Dave was working on a project kit described in an older *QST* article to do just this sort of thing. Unfortunately it didn't turn out well. First, the kit was designed with a straight key in mind. Both Dave and I use paddles. Secondly, Dave was not happy with the audio output quality from the kit. So we needed to head in another direction.

I almost gave up and purchased an external electronic keyer which could be used with a 2M FM rig. Then I started to price them out. Keep in mind, this is me, KJOEYT, I'm cheap when it comes to stuff like this. I couldn't force myself to buy a "real" CW key because, in my mind, it's just a switch. So, also in my mind, an electronic keyer is nothing more than a beep machine. So I was all sorts of conflicted.

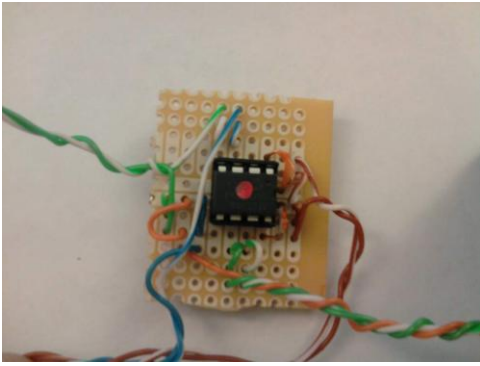
Then I got a “TiCK”.

Let me explain...

On the Sunday night after the hamfest, after another CW practice session, I started doing some research. I ended up finding a \$5.00 microchip which contains the bulk of the functionality contained in an electronic keyer. The chip is called the “TiCK”. Lo and behold, the TiCK is being marketed and sold by *Kanga US*, down in Findlay. And guess what? Kanga was at the TMRA Hamfest which I was at earlier that day. I almost kicked myself thinking that I probably walked right by this stuff just hours before. But I'm a fat guy, and the only way to kick myself would involve jumping, and I don't think the knees can handle it... and the floor would probably curse me too.

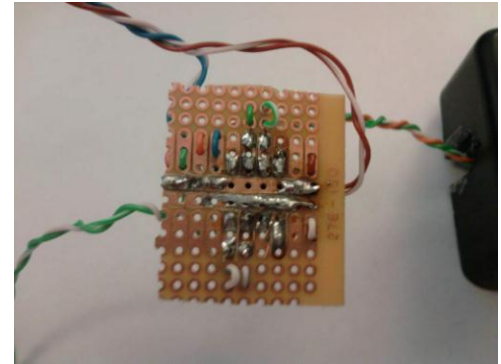
Moving along... I had a business trip to Columbus, so I visited Kanga on my way back. I visited Bill Kelsey, N8ET, at Kanga (run out of his home). Nice guy. Showed me the TiCK kits as well as some of the other neat kits Kanga offers. The bad news was that he was short on stock of the TiCK kits. I was able to get a couple, but pretty much cleaned him out. He did say he hoped to get more for Dayton, however.

The TiCK is an 8-pin microchip which requires minimal external components to operate. Kanga sells a kit which includes all the necessary components for \$16.00. I can deal with that... granted, the “KJOEYT East Side

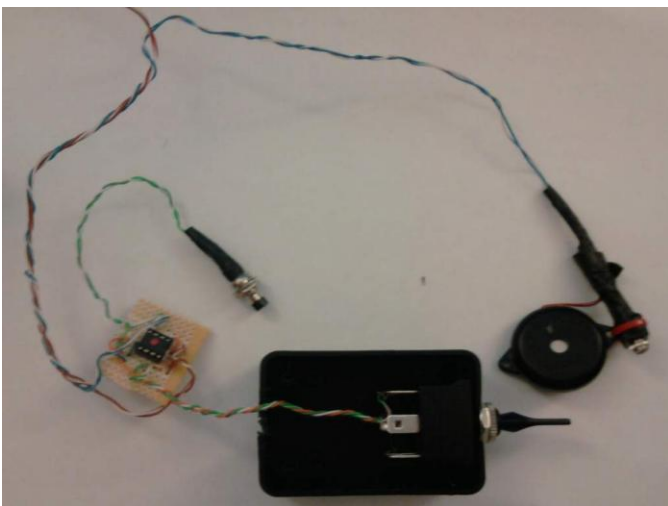


Key” didn't cost that much to make, but hey, this is adding just a 'lil more functionality to it (I mean, come on, it BEEPS man!). The kit includes a pre-printed circuit board, but I chose not to use it. After looking at the documentation included with the kit, I decided I could cut out a few of the external components shown on the diagram. Did I mention I was a fat guy? I got fat hands. I do not solder well. More components means more things to solder. No thanks. I ended up using a circuit board from Radio Shack (part #276-150) with some pre-etched patterns. It's perfect for the TiCK chip (and many other 8-16 pin dual-inline chips). When using a DIP (Dual Inline Package, I think)

microchip, you can use a socket like Radio Shack part #276-1995 (also included in the TiCK kit I think) with the aforementioned pre-etched circuit board. When using this combination, the chip socket straddles two pre-etched lines running up and down the board. Perfect for positive voltage and ground. Speaking of which, the TiCK chip runs on 3-5 volts. However, the kit comes with components enabling you to use higher voltages (such as 12V which is what most of our equipment runs on). I took the easy route and just found a 5V DC wall wart I had lying around. That's a few less components needed (and solder connections!).



Next up, the bulk of the other electronic components in the kit deal with the chips ability to provide keyline output. I'm not going to explain what that is just this moment (this article ain't gettin' any shorter), but suffice it to say that it's not needed to provide audio output for a 2M FM rig. With all these components eliminated I was basically soldering lengths of wire to the pins of the chip socket. Pins 1 and 8 (voltage and ground) I ran very short jumper wires to the etch lines running up and down the center of the Radio Shack circuit board. Pin 3 (audio output) I just ran wire to the piezo speaker included in the kit (red wire). The black wire of the piezo speaker goes to ground. The wires going to the piezo speaker are also used to pump audio out to your rig via the stereo jack connector also included in the TiCK kit. Pin 4 (push button) I just ran a wire to one of the two pins on the included push button. This push button is used to control the speed of the keyer. Again, the other pin of the push button connects to ground. That just leaves pins 6 and 7.... the inputs for "dit" and "dah", i.e., the connection to the CW paddle (which, in my case, is a \$5 Radio Shack switch... part #275-709).



I ended up being able to place all this into my existing KJ0EYT East Side CW Keyer. After all... it is a project box. On the top is the CW keyer itself, on the bottom is the push button included in the TiCK kit used to control the keying speed. Two pairs of wires trail out the bottom side of the project box. One pair runs to the aforementioned 5V DC power supply, and the other runs to the piezo speaker (I couldn't fit it in the project box that I used) and the audio output jack.

Total cost of this project: Around \$30. The TiCK kit is \$16, the keyer/switch was \$5, the project box was maybe \$5, and the circuit board was \$2. Plus tax, of course.

The new and improved KJ0EYT East Side Keyer
KJ0EYT Photos

Dave and I hope to further refine this project to add automatic PTT (Push To Talk) functionality so the keyer

electronics can automatically trigger your rigs PTT while keying. But this is still underground testing and will be detailed in a future Beacon article and possibly a TMRA General Meeting presentation. No guts, no glory...

For the time being, when using this key on FM, I hook up the key's audio output to the audio input of my RIGBlaster. The RIGBlaster also has a simple connection for hooking up a switch for PTT functionality. I use a slider switch for that, so when I want to send I just flip that and it stays on PTT until I turn the switch off. The RIGBlaster then pipes the audio from the key into the radio. If you are using something like a Signalink, you're kinda out of luck and will have to figure out the audio/PTT connections to your rig yourself. Or you can wait until we further refine the project, *hi hi*.

73 de KJ0EYT

TMRA Meeting

The next TMRA meeting will be on Wednesday, May 11. A great program is planned. If you have not attended a meeting in a while, it is time come back. Steve, KC8TVW, has programs planned for meetings throughout the year. Bring a friend.



April 13th TMRA Meeting at The Electrical Industry Building
kb8fxj photo

THE TOLEDO MOBILE RADIO ASSOCIATION P.O. BOX 9673, TOLEDO, OH. 43697-9673

President, Brian, WD8MXR; Vice-President, Steve, W8TER;

Secretary, Ron, N8RLH; Treasurer, Brenda, KB8IUP.

Board Members: Chris, KC8UFV; Joe, KJ0EYT; Tom, KB8PAI; Rita, WB8FBG; Dan, KE8UE.

TMRA Home Page www.tmrahamradio.org Webmaster, Tom, KB8PAI.

TMRA W8HHF Repeaters; 147.270+, 224.140-, 442.850+ (TMRA 2 meter, 220, and 440 repeaters operate with a 103.5 "PL", or a touch-tone access code of 1-2-3)

TMRA W8HHF Packet BBS Frequencies 51.780, 145.690, 223.480, 441.060

The TMRA meets at 7:30 PM every second Wednesday in

The Electrical Industry Building, Lime City Rd. Rossford, Ohio.

The TMRA Q & A net meets every Sunday night at 7:30 PM, followed by the TMRA "Information & Swap 'N-Shop" net at 8:30 on the 147.270+ repeater. All amateurs are invited to check-in.