



# Squelch Tales



*Merrymeeting Amateur Radio Association Newsletter for June 2013*

# Field Day 2013 Just a few weeks away

## A fun weekend project

By Bruce Randall, W1ZE

A few years ago at NEAR-Fest in Deerfield, NH I went into one of the exhibition building where a chap was demonstrating and selling a unique electronic CW keyer, Model 2K with a brand name of CW TOUCH PADDLES (clever marketing).

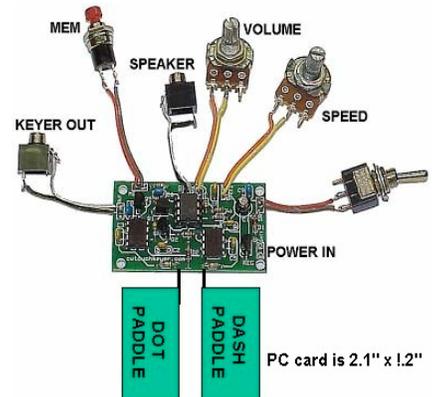
I had seen this type of keyer featured in a past issue of QST. It had no moving parts and just by touching the metal dash and dot paddles the keyer responds. I played with his demo models and they had good response and feel. Now, I have no shortage of keyers and key paddles in the shack but thought something like it would be useful in W1ZE/M. Oh yes, not while driving, only when I'm parked, even though I have done it before to land a quick DX contact while doing 60 MPH on I-95.

Around Christmas time the family always asks what I want for Christmas so I provide a short list of ideas to them that included the CW TOUCH KEYSER from the chap at

Them with a short list and one of the items was the touch paddle keyer kit I played with at NEAR-Fest. Come Christmas Morning my oldest daughter gave me the pre-assembled keyer board with necessary switches and pots so I could assemble one. Good Daughter!

With other things going on here during the winter I did not get around to assembling it until late that April.

You can purchase the keyer already assembled in an enclosure but I like the building process and this one is about as easy as you can get. I needed an enclosure and I thought of a plastic construction box from Radio Shack. My local blister-pack store did not have a size I liked, either to big or to small. I then remembered that some



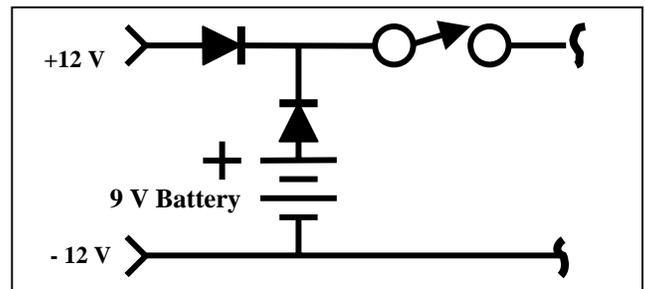
time ago Bill Messier, K1MNW gave me some salvaged molded aluminum boxes that at one time housed a small Ethernet terminal that were hit by lightning. I have used three of them before for keyer project, microphone/data switch boxes and a soundcard interface for digital modes. With a little metal work and a can of spray paint I made a good-looking keyer. The nice thing about the cast aluminum box is that with a 9-volt battery and a few parts installed in it, there is enough weight to stay put on the table if you employ four little rubber feet (avail at the hardware stores and RS).



Now, what to use for the two fixed metal touch-paddles. The finished models provided by CW TOUCH PADDLES are made from brass and they can purchased separately, but they were larger than I wanted. Back to the hardware store I went to see what I could use. I ended up in the fastener and bracket area and spied a 4-pack of 1x1 inch brass angle brackets for fewer than two dollars. I only needed two, so the remaining two went in my house supply box(s). The two paddle brackets just fit on the plastic front plate of the box enclosure with a half-inch separation. That is about the same spacing as my iambic keyer paddle on my shack desk.

The keyer comes with the external parts shown in the proceeding pictorial. The builder has to supply an enclosure, metal paddles, two small knobs, a small 8-ohm speaker and a 9-volt battery with battery clip. I mounted the speed and volume pots on top along with the memory push-button. The keyer output jack, on/off switch and external 12-volt input RCA jack is mounted on the rear apron.

I employed two power sources for the keyer. It can be powered by an internal 9-volt battery or from an external 9-to12 VDC source via the rear apron jack. The 12 volts is fed through a 1N4148 or 1N4001 diode. Another diode can be placed in the positive lead of the 9-volt battery to isolate the two sources from each other.



If you are interested in this little Touch Paddle keyer check out the following web site: [www.cwtouchkeyer.com](http://www.cwtouchkeyer.com). The site also offers just the K3 series of electronic keyer without memory.

If you want to use the little keyer with an older tube type transmitter/transceiver with grid-block or cathode keying you can not use it as is. You will need an interface device such as a “KEYALL” kit provided by Jackson Harbor Press at:

<http://jacksonharbor.home.att.net/keyall.htm>.

**Happy building! 73, Bruce, W1ZE**



## *KS1R will be on the air during Field Day*

Field Day is June 29 and 30th, 2013. As everyone in the Association will recall, our Field Day operation tends to be a major social and educational event in our association's calendar. We've also have been highly successful in the competition. In the past several years sitting high on the final result tally in Maine, New England in the 2F category operation.

As in past years Our Field Day operation will take place at the Red Cross Chapter in Topsham and we will continue in the 2F category.

The "Get on the AIR" (GOTA) operation will use the NITRC HF station as in previous years. In addition, the Red Cross now has a permanent PSK31 station up and running on 20/40 meters; thus, one of the two KS1R stations is already there.

Although we will need to discuss the situation in further detail at the May

meeting, the rest of the configuration will probably be a lot like previous years. We will need a SSB/CW transceiver/antenna for HF, and equipment for 6/2 meters for our "free" VHF station.

expected to learn something about ham radio, and the learning is supposed to be "by doing." There are no limits as to who can be the instructor, or the students, or the topic of the training, or its duration, or the number of training sessions. There is a single 100 point bonus for "Educational Activity."

(Note: We will try to reach a decision on the nature of the educational activity at the May MARA meeting.

. The critical item is to reach a goal we that have not met in previous years: **RUN TWO TRANSMITTERS ROUND-THE-CLOCK FOR 24 HOURS.** Most critically, we need PSK31 operators, especially for the overnight shift.

We also need various volunteers to help us earn the bonus points:

- Emergency power: 200 points if we crank up the Red Cross generator during the Field Day period.
- Media publicity: 100 points
- Public location: 100 points; we get this for free at the Red Cross
- Public information table: 100 points; Marjorie, KX1I, has handled in past
- Message to SM: 100 points. This year, we'll try it on the Pine Tree Net (CW)
- NTS traffic: 100 points. We need 10 formal messages to send via the Pine Tree Net
- Satellite contact: 100 points (Are Donnie, WD1F, and Brian, AA1WI, available?)
- Alternate power: 100 points for 5 contacts. (Is WD1F available?)

- W1AW bulletin: 100 points
- Educational activity: 100 points. Looking for ideas, as previously discussed.
- Visit by politician: 100 points. Very easy to attract them in an election year.
- Visit by served agency rep: 100 points; get for free at Red Cross
- GOTA contacts: 20 contacts => 20 bonus points, up to 100 per GOTA OP, double if coached full-time
- Web submittal: 50 points easy.
- Youth points: 20 points for operator 18 or younger making one contact. Up to 5 youth operators allowable for credit.

We will take up Field Day planning in more detail at the May MARA meeting. Turn out and have some fun!



# Invite a Kid to Field Day

By Dan Romanchik, KB6NU

If you've been around ham radio for any length of time, you'll notice that ham radio operators like to complain. One of the most frequently heard complaints is, "Kids aren't interested in amateur radio anymore." While I'm not so sure that's true, I do know that now is the time for you to do something about it.

How? Invite a kid to Field Day. Invite them to help you set up antennas.

Show them how you power the rigs with a generator, or even cooler, by charging a battery with a solar panel.

Let them sit in front of the rig, show them how to make contacts, and log for them. To make it easier for them, make up a cheat sheet with the callsign spelled out phonetically and the exchange, also spelled out phonetically.

Let them operate for as long as they're interested. When they're done, thank them on contributing to your club's total score.

Answer every single one of their questions.

This may not win them over immediately, but I can assure you that it will make an impression on them. To increase your chances of success, find a kid that's already technically inclined. Invite a bunch of them from the high school's robotics team, for example.

If you don't have any plans for Field Day, then make some. Then, go find that kid. If you don't, then you don't have any right to complain that there are no kids in ham radio.

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*When he's not trying to get kids interested in amateur radio, Dan, KB6NU enjoys working CW on the HF bands and teaching ham radio classes. For more information about his operating activities and his "No-Nonsense" series of amateur radio license study guides, go to [KB6NU.Com](http://KB6NU.Com) or e-mail [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).*



## A Happening in Herman

It's that time of year again, The Pine State Amateur Radio Club is having their annual Hamfest at the Hermon High School, Hermon, ME on June 1st , 2013 at 08:00 EDT. The PSARC will be launching a high

altitude balloon from the event. At about 1300Z. There will be APRS beacons so the flight can be easily tracked on [aprs.fi](http://aprs.fi) They will have the crossband repeater on the flight also. The uplink is 147.570 with no tone and the downlink is 446.100. Last year, we made contacts as far away as 362 miles from Long Island, New York. We hope to beat this distance record this year!! The theoretical coverage area of the repeater is over 400 miles. This includes NYC, Long Island, eastern New York State, all of New England, parts of Quebec, all of New Brunswick and Nova Scotia. They hope to hear you on the air!

Technical info: The output of the repeater is 1.5 to 2 watts into a j-pole antenna. Reports we have received tell us that we hear the VHF signals better than the sending station hears the UHF reply. Please consider this when choosing a receive antenna. Last year the repeater performed well on two flights. This year, we launched the repeater to confirm it was working well. We had a problem with the repeater input audio fading. It may have been interference from a ground station. We were not able to reproduce the problem on the bench. We are hoping for great performance on this next flight.

73 Steve, KD1OM



## WX4NHC's Annual On-the-Air Station Test from the National Hurricane Center

The annual WX4NHC On-the-Air Station Test from the National Hurricane Center (NHC) in Miami will take place Saturday, June 1, 1300-2100 UTC (9AM-5PM EDT). "The purpose of this annual station test is to test all of our radio

equipment, computers and antennas using as many modes and frequencies as possible in preparation for this year's hurricane season," said WX4NHC Assistant Amateur Radio Volunteer Coordinator Julio Ripoll, WD4R. "This is not a contest or simulated hurricane exercise."

WX4NHC will be on the air on HF, VHF and UHF, as well as 2 and 30 meter APRS. Suggested SSB frequencies are 3.950, 7.268, 14.325, 21.325 and 28.425 MHz, ±QRM. WX4NHC also will be on the VoIP Hurricane Net from 1700-1900 UTC (IRLP node 9219/EchoLink WX-TALK conference node 7203) and on VHF/UHF repeaters in Southern Florida.

Stations looking to participate in the annual station test may be able to find WX4NHC on HF by using one of the DX spotting networks, such as DX Summit.

Stations working WX4NHC exchange call sign, signal report, location and name, plus a brief weather report, such as "sunny," "rainy" or "cloudy." Non-hams may submit their actual weather using the Online Weather Report Form at, <http://www2.fiu.edu/orgs/w4ehw/WX-form1.html>. QSL cards will be available via WD4R and must include a SASE. Do not send cards to the NHC. Due to security measures, no visitors will be allowed at the NHC during the test.



## You are invited to join the QCWA for lunch

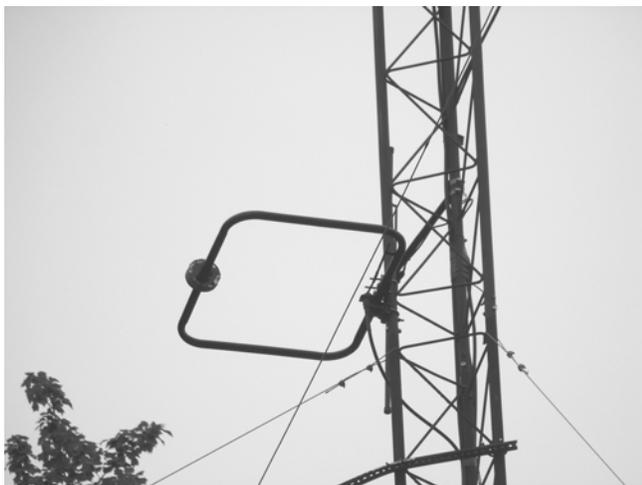
If you are planning on attending the **Hermon "Bangor" Hamfest on Saturday, June 1, you are also invited**

to join the members of the Maine Chapter of QCWA following the the hamfest at the Happy China Super Buffet at the Bangor Mall. You do not need to be a QCWA member to participate in the lunch/meeting.



## Folding Lawn Chair 50 MHz Halo revisited

By W1ZE (reprint from July 2009)



Several years ago Dick Stroud, W9SR had an article in QST titled “**Six Meters from Your Easy Chair.**” This article caught my eye so I made a copy of the article and put it in my Ham radio antenna computer file (a very large file).

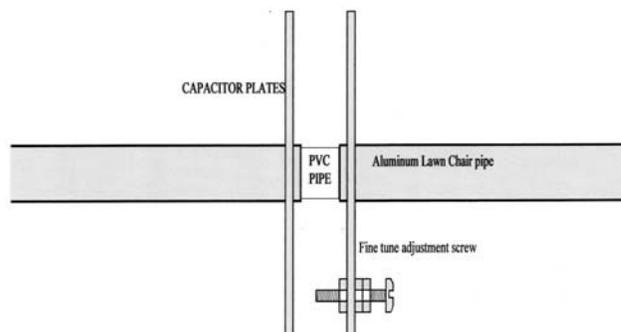
A few years ago, after I got my 55-foot tower up in the air with my SteppIR Yagi on it. I thought it would be good thing to have an Omni-directional, horizontally polarized antenna for six-meters so I could keep tabs on the calling frequencies to alert me to a six-meter band openings.

A halo or squalo antenna would fit my needs. At about the same time I was about to clean out the garage and noted two old cheap Wal-Mart aluminum folding-chairs. One was a little bent out of shape and the other had it’s webbing coming apart. Dick’s article came to mind and they were saved from a trip to the Phippsburg recycling center and relocated to the workshop.

I made a trip to the hardware store for a small piece of aluminum sheet to fabricate the capacitor plates and a blank galvanized electrical quad box cover to be used as the mounting plate.

With hacksaw and tin-snips I went to work. A few hours of fabrication work the antenna started taking shape. After it was assembled I went into the test mode with my antenna analyzer. After some gamma-match adjustments and finding a proper capacitor gap I got it resonant in the in six-meter band. What was troubling to me was the touchiness of the capacitor disc plates adjustment. I could never seem to get the SWR sweet spot at 50.125. It was either out of the band on the low side or up at the high end of the band, never a happy medium. I needed a smaller capacitor in parallel to the big disc capacitor to fine-tune the antenna.

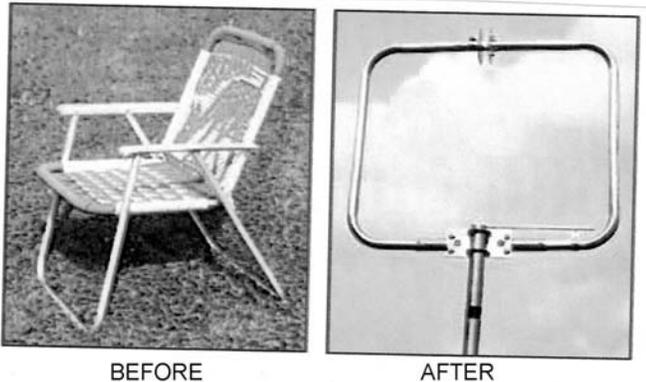
What I settled on was a 6-32 brass screw and a few brass nuts that would act as a screwdriver adjusted capacitor mounted



near the edge of one capacitor plate.

This mod worked slick. After rough tuning of the capacitor plate I could fine-tune the have the lowest SWR at 50.125. Two turns of the screw would move the sweet spot 20 kHz. After final adjustment I had 1.5:1 or less from 50.010 to 50.500 MHz, most of that range 1.1:1.

I have made dozens of QSO with it and it works very well as an Omni-directional horizontally polarized antenna.



If you would like to build a lawn chair halo and need the plans, go to the ARRL web site. If you are a member, download the following PDF file from:

[www.arrl.org/members-only/tis/info/pdf/020133.pdf](http://www.arrl.org/members-only/tis/info/pdf/020133.pdf)  
73, Bruce



## COMCAST ON THE HILL

**Oak Hill:** Bill Messier, K1MNW, Oak Hill site owner and Chief Broadcast Engineer for WJTO AM&FM advises that during the last week in May Comcast and CMP will be on the hill running fiberoptic cable that will provide high-speed internet service so that real-time audio feed programming can be streaned from the WJTO studio in West

Bath. to the new WJTO FM transmitter located on Bill's tower

With this event it appears that Bill, and in addition the KS1R D-Star repeater will have access to a high-speed internet. Prior to this, the internet link for Bill and the repeater was relayed through a 2.5 GHz microwave link from Oak Hill to Donnie's (WD1F) QTH near Fuller Mountian in Phippsburg.

The new Comcast service has more than adequate bandwidth to accomidate WJTO's needs, Bill's Internet access and in turn give the KS1R D-Star box smooth high-speed access to the worldwide D-Star network.



*The Merrymeeting Amateur Radio Association and Midcoast ARES group meets the last Thursday of every month at the American Red Cross building on the corner of 196 and Community Way in Topsham. The ARES meeting kicks off at 6:00pm and the MARA meeting gets underway at 7:00pm. We would love for you to attend the meeting(s) and bring a friend, fellow ham or someone interested in Amateur Radio.*