



# Squelch Tales



## Newsletter from the Merrymeeting Amateur Radio Association for December 2015



# SEASONS GREETINGS

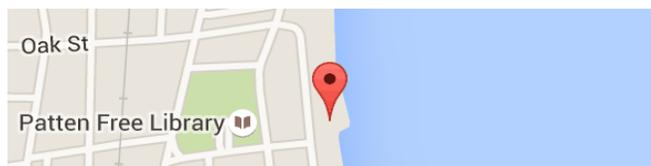


### Year End Association Dinner set for Saturday December 5<sup>th</sup>.

The MARA will hold the Year End Dinner on Saturday December 5<sup>th</sup> starting at 6:00pm. Again it will take place at the Kennebec Tavern on the riverfront at 119 Commercial Street in Bath.



Order what you like from the menu and bar. There is no cover or minimum, but treat your server well. If you want to plan ahead you can view the menu on the Kennebec Tavern's website at, <http://www.kennebectavern.com/>

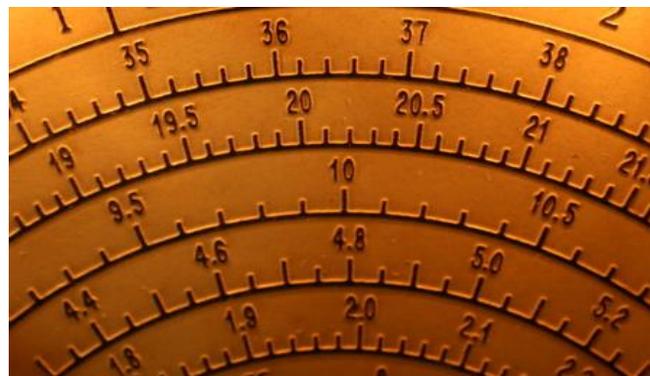


Bring your significant other, family members or friend and enjoy the evening with your fellow members. Pray for 'NO ICE & SNOW' that night.



### Shortwave Listening can still be fun

By W1ZE



Back in the dark ages, 1958 to be exact, when I was a young teenager and becoming enamored with all things Radio, I asked my parents for a Knight Kit 'Space Spanner' Shortwave radio that was sold by Allied Radio, known then as Radio Shack.

It was a three tube regenerative receiver that had two bands, broadcast and 6.5 to 17 MHz shortwave. It sold for \$18.95+shipping and for another \$4 you could get a spiffy vinyl covered wooden matching cabinet. Funds from my paper route and lawn mowing just wouldn't cover it and \$25 was big money in the mid 1950s.



Christmas morning 1958 arrived and under the tree was a gift box with my name on it. Upon opening it was just what I wanted, a 'Space Spanner' radio kit. Thanks Santa!

The day after Christmas I was in the workshop with a hot soldering iron and a few other hand tools assembling my kit radio. Three days after Christmas it was built. My dad helped me string up a long wire antenna and I fired it up. A success, no smoke emanating from the radio. After figuring out the correct setting for the regen control I could hear local Los Angeles AM broadcast stations all over the dial. I then switched to the shortwave band and tuned around. The first good signal I heard 'loud' was HCJB in Quito, Equator. My dad and I sat there at my desk listening to that station and others we found for the better part of an hour. That did it, I was now a radio geek, and by 1960 I was a licensed Ham Radio Operator, WV6MUP.

To this day I still like to tune around on the HF bands and listen to foreign broadcast stations. There are not as many as there were back in the 1950s through the 1980s but they are still out there. Big stations like the BBC, CBC and RFE are no longer broadcasting but there are still stations broadcasting in English. Here are a few listings that will help you find a station you may want to listen to on your fancy Japanese or American HF transceiver.

<http://hfradio.org/english/>

<http://www.primetimeshortwave.com/>

Just put the mode switch in 'AM' and start spinning the dial. You may enjoy it.

As an added note, I still have that 57 year old Knight Kit radio and it still works.

*73, Bruce Randall, WIZE*



## **A NEW HEATHKIT! SO, WHY AM I NOT EXCITED?**

An editorial By Dan Romanchik, KB6NU

A couple of weeks ago I got an e-mail from Heathkit. Yes, the NEW Heathkit. you might remember that a couple of years ago, there was all this hype about a "new" Heathkit and how they

were going to start designing new kits as well as revive popular old designs.

Then, nothing. They went completely quiet-until a couple of weeks ago. In an e-mail sent to their "insiders," they say:

"Dear Heathkit Insider,

'What I really hope Heathkit will produce,' a Silicon Valley colleague recently told me, 'is a new radio kit with a beautiful finish, maybe in rosewood.' Something great to enjoy building and learn from, and also visually stunning, so he could put it in his living room and keep it forever.

"Today, my friend gets his wish. - They then go on to explain all of the work they've been doing in relocating Heathkit to Santa Cruz, CA, acquiring a second company, and securing all the intellectual property rights to the old Heathkit manuals and logos (meaning no more bootleg copies on the Internet). The e-mail continues:

"That's a lot, but there's more. We've designed and developed a wide range of entirely new kit products. We authored the manuals for these kits, complete with the beautiful line art you rely on, preserving and respecting our iconic historic Heathkit style. We developed many new inventions and filed patents on them.....We built the back office infrastructure, vendor and supply chain relationships, systems, procedures, operations methods, and well-thought-out corporate structure that a manufacturing company needs to support its customers, to allow us to scale instantly the day we resume major kit sales. All this effort enables us to introduce a fleet of new kits and helps ensure Heathkit can grow, prosper, and continue to bring you great new products for a very long time."

So, what's the exciting news? A new QRP transceiver? Maybe a shortwave radio? A new 100-in-1 experimenter kit for Makers?

Uh-uh. Sorry. The "exciting" news is a tuned radio frequency (TRF) AM band (yes, I said AM band) radio kit that costs \$150 (<https://shop.heathkit.com/shop/product/explorer-jr-trf-am-radio-receiver-kit-black-case-gr-150-bk-16>). Not only is that crazy expensive for an AM radio, it doesn't even come with a speaker. On top of that, there's no soldering. You screw all of the

components to the board. I'm speechless (well, figuratively, not literally).

I'm not sure what the target market is for this product. It's certainly not amateur radio operators, who expect a lot more (in terms of both functionality and "fun") for their money. Nor is it the "Maker" folks, who want something more challenging than an AM radio. I think that if I took this to show off at the local Ann Arbor Maker group, they'd laugh me out of the place.

I really hope that they have something better up their sleeves. A strong Heathkit would be good for the Maker movement and for ham radio.

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*When not thinking about what kit to build next, Dan, KB6NU, operates CW on the HF bands (mostly 40m and 30m). His #1-rated amateur radio blog can be found at [KB6NU.Com](http://KB6NU.Com), and you can e-mail questions, comments, or complaints to [cwgeek@kb6nu.co](mailto:cwgeek@kb6nu.co)*



## W1AW 2015/2016 Winter Operating Schedule

### Morning Schedule:

Time	Mode	Days
1400 UTC (9 AM EST)	CWs	Wed, Fri
1400 UTC (9 AM EST)	CWf	Tue, Thu

### Daily Visitor Operating Hours at W1AW:

1500 UTC to 1700 UTC - (10 AM to 12 PM EST)  
 1800 UTC to 2045 UTC - (1 PM to 3:45 PM EST) (Station closed 1700 to 1800 UTC (12 PM to 1 PM EST))

### Afternoon/Evening Schedule:

2100 UTC (4 PM EST)	CWf	Mon, Wed, Fri
2100 " "	CWs	Tue, Thu
2200 " (5 PM EST)	CWb	Daily
2300 " (6 PM EST)	DIGITAL	Daily
0000 " (7 PM EST)	CWs	Mon, Wed, Fri
0000 " "	CWf	Tue, Thu

0100 "	(8 PM EST)	CWb	Daily
0200 "	(9 PM EST)	DIGITAL	Daily
0245 "	(9:45 PM EST)	VOICE	Daily
0300 "	(10 PM EST)	CWf	Mon, Wed, Fri
0300 "	"	CWs	Tue, Thu
0400 "	(11 PM EST)	CWb	Daily

### Frequencies (MHz)

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CW: 1.8025 3.5815 7.0475 14.0475  
 18.0975 21.0675 28.0675 147.555  
 DIGITAL: - 3.5975 7.095 14.095  
 18.1025 21.095 28.095 147.555  
 VOICE: 1.855 3.990 7.290 14.290  
 18.160 21.390 28.590 147.555

### Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM  
 CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM  
 CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2330 UTC (6:30 PM EST), Keplerian Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (8 PM EST) Thursdays and 0100 UTC (8 PM EST) Fridays.

Audio from W1AW's CW code practices, CW/digital bulletins and phone bulletin is available using EchoLink via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here as well. The audio is sent in real-time and runs concurrently with W1AW's regular transmission schedule.

All users who connect to the conference server are muted. Please note that any questions or comments about this server should not be sent via the "Text" window in EchoLink. Please direct any questions or comments to [wlaw@arrl.org](mailto:wlaw@arrl.org).

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Digital at 15 minutes past the hour, and CW on the half hour.

All licensed amateurs may operate the station from 1500 UTC to 1700 UTC (10 AM to 12 PM EST), and then from 1800 UTC to 2045 UTC (1 PM to 3:45 PM EST) Monday through Friday. Be sure to bring your current FCC amateur radio license or a photocopy.

The W1AW Operating Schedule may also be found on page 102 in the November 2015 issue of QST or on the web at, <http://www.arrl.org/wlaw-operating-schedule>.



## Quality Green-Line station + for Sale

The following Ham Radio equipment items are being offered for sale from the Corderman brothers, Sid (K2CML) and Al (W3ZD) as they downsize their radio shacks.

The first offering is Sid's complete Heathkit station (the Green S-Line) consisting of the following items. For Heathkit collectors this is a sweet station.

**HeathkitSB-101 HF Transceiver** in A-1 condition with power supply/phone -patch



Plus the following

**HEATHKIT HA-13 HF AMPLIFIER** with two 5762B in the final, includes the HV power supply that will deliver 1200 PEP. All in A-1 condition



**HEATHKIT SB-600 matching Speaker** &

**HEATHKIT(Electro-Voice) HAD-21A** desk microphone



Collection includes two matching station control units built into Heathkit cabinets by K2CML to match the other units.

All the units come with the original manuals. **Asking \$450 for the complete collection.**

The second offering is from Al Corderman's W3ZD collection of well maintained equipment.

**Icom IC-751 HF Transceiver** (160-10M 100watts CW/SSB/AM) + .1 to 30 MHz general coverage receiver) in A-1 condition. Runs on 120 vac, no need for a big 12vdc supply. Includes a companion RC-10 control unit and hand microphone.. Asking \$450 with pickup at W1ZE's QTH



The third offering is from the storage shelf of Bruce Randall, W1ZE.



**Heathkit SB-220 HF linear Power Amplifier** (original, unmodified) with a pair of 3-500Z final tubs giving you a true KW (2 KW PEP). He was going to modify it for a 6M KW amp but never got around to it. **Asking \$400** with pick up at W1ZE's QTH in Phippsburg.

**For info on all the above items call Bruce/W1ZE at (207) 442-9630 or email at w1ze@arrrl.net.**



## TRANSEQUATORIAL PROPAGATION, WHATS THAT?

By J. Bruce Randall, W1ZE

In the 2014 ARRL Handbook it described Trans-equatorial Propagation (TEP) as follows:

**Discovered by Amateur Radio operators in 1947,** *transequatorial propagation* (commonly abbreviated TE or TEP) supports propagation between 5000 and 8000 km (3100 and 5000 miles) across the magnetic equator from 28 MHz to as high as 432 MHz. Stations attempting TE contacts must be nearly equidistant from the geomagnetic equator. Many contacts have been made at 50 and 144 MHz between Europe and South Africa, Japan and Australia and the Caribbean region and South America. Fewer contacts have been made on the 222 MHz band, and TE signals have been heard at 432 MHz. Unfortunately for most continental US stations, the *geomagnetic equator* dips south of the geographic equator in the Western Hemisphere, making only the most southerly portions of Florida and Texas within TE range. TE contacts from the southeastern part of the country may be possible with Argentina, Chile and even South Africa.

Transequatorial propagation peaks between 5 PM and 10 PM during the spring and fall equinoxes, especially during

the peak years of the solar cycle. The lowest probability is during the summer. Quiet geomagnetic conditions are required for TE to form. High power and large antennas are not required to work TE, as VHF stations with 100 W and single long Yagis have been successful. TE propagation depends on bulges of intense F2 layer ionization on both sides of the geomagnetic equator. This field-aligned ionization forms shortly after sunset via a process known as the *fountain effect* in an area 100-200 km (60-120 miles) north and south of the geomagnetic equator and 500-3000 km (310-1900 miles) wide. It moves west with the setting Sun. The MUF may increase to twice its normal level 15° either side of the geomagnetic equator.

Over the years I had worked several TE openings on the 10 meter band from my QTH in Maine to stations an equal distance below the equator as I was above the equator. Many times that was the only type of DX openings on the ten meter band.

During the evening (22:10z) on November 3rd I had occasion to look on my computer screen where I had the Telnet DX spotting service displayed. I noted that Six Meter Big Gun, Paul 'Lefty' Clement, K1TOL in Turner, Maine was reporting he was hearing a six meter beacon in Uruguay, South America. Thinking that maybe there was a TE enhancement going on I turned my Yagi south and switched to the six meter band on my trusty IC-746PRO. As I tuned across 50.110 MHz there was Lefty in QSO with CX9AU. The CX9 signal had some QSB between S-6 and S-9 but very good copy. When Lefty signed off I gave CX9AU a quick call and Daniel in GF15 and I had a short QSO and exchanged grid square. As soon as I signed off I received a call from LU6DRV in central Argentina almost parallel to CX9AU's QTH. We had a short QSO and he was delighted to work Maine on six meters.

For several minutes after my two South American QSOs I tuned around the band from the Beacon portion to above 50.2 MHz and did not hear another signal. This truly must have been a rare but strong TE opening and my first LU and CX stations on six meters.

Six meters is truly the Magic Band. **73, de W1ZE**



**The MARA Executive Board and it's Officers along with the Midcoast CERT-ARES officials want to wish all Squelch Tales readers all the joy this Holiday Season has to offer.**

**Have a happy & healthy New Year**

