KS1R

MS Walk Event
April 27, 2013
Knights of Columbus
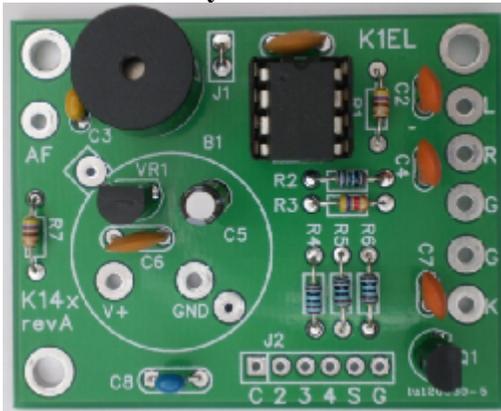2 Columbus Drive, Brunswick
9 a.m. check-in; 10 a.m. start
Operators Needed, See N1TTT

- Call sign storage
- Supply voltage monitor
- Backspace on message entry
- Dot & Dash paddle memory
- Bug, Iambic A/B & ultimatic modes.
- AF keying mode
- Beacon mode
- Sidetone
- And more…

A Memory Keyer Kit you can build in a few hours on the cheap
By W1ZE

That's right; a memory keyer that is very inexpensive, easy to build and it works well. The hart of keyer is the K14 8-pin IC chip. The chip has the following attributes built into it:

- Speed range = 5 to 59 WPM
- Messages = 236 letters/12 slots
- Embedded commands
- EEPROM message storage
- Message stacking

You can purchase just the **K14** IC chip for $8 and assemble it on a small Radio Shack PC postage stamp board or you can purchase a complete K14-EXT kit consisting of board and all on-board parts for about $20. You can assemble this kit and install it in a verity of different enclosures from an Altoid tin box to a small Radio Shack aluminum box with just the addition of a speed control pot, small push-button and on/off switch, stereo jack and power receptacle.

I have built several keyers using the K12 IC chip (now K14) and very satisfied with its performance. I used one of these kits in my keyer used on Field Day.

For more information and to order the K14 keyer kit go to the K1EL website and review the product line and download the PDF assembly and operation manual at: **http://www.k1el.com/**

73, Bruce

Telnet DX-Cluster, a useful tool to land that rare one.

BY Bruce Randall, W1ZE

Several years ago in this newsletter I described how useful the DX Packet Cluster was in chasing DX and checking on band openings on HF, VHF and UHF. Since that time packet has gone the way of the high button shoes and buggy whips. When it was up and running, I used the K1EU DX-Cluster packet node just south of Portland on 2-meters. That node was linked to the nation and worldwide Telnet DX spotting system and very useful. Usage on the node was light and it was repeatedly hit with lightning so Michael, K1ED disassembled the node, but left the Telnet port open from his server at his QTH in Scarborough. After this happened I decided to continue using the K1EU node via the Internet and Telnet.

If you are running a PC or laptop that is running Windows-7 or follow-on op-systems, the old dumb terminal emulation software was eliminated from their communications accessory program list leaving no way to make your PC a dumb terminal. Microsoft recommended using an aftermarket terminal emulation program if you needed one such as the freeware program called **PuTTY** available at: www.**putty**.org/. For MAC users go to: www.codingsteps.com/installing-and-using-putty-on-**mac-os-**x
After you download the program to your PC or MAC you will need to setup your configuration page (tile).
1. In the port window type in **23**

2. In the lower window you will see the words "**Defalt Settings**" this where you will put in the Telnet address for the node you want to us. In my case it was "**dxc.k1eu.dynip.com**." **k1ttt.net** is another nice New England based site.
3. In the connect type row, click on **Telnet**
4. Highlight the new telnet address and click the "**save**" button then hit the **"Load**" button. The address should appear in the host name/IP address window.
5. Now click the "**open"** button and you will see your screen go black and a prompt from your selected DX spotting node will appear.
6. Follow the instructions in the prompt to set up your DX Spotting account.

The following sites can provide you with additional information and tutorials:
- http://www.drhnet.com/cluster.htm
- http://www.ng3k.com/misc/cluster.html
- http://www.cqplanet.com/

Give it a try. You will find it useful.

73, W1ZE

A desk Mic. for about $10

By Bruce Randall, W1ZE

While sitting at my operating position at my winter QTH in W6-land and working a DXstation on 17-meter SSB I had the Yaesu MH-31 handheld microphone in one hand and attempting to enter the DX call sign into my PC logging program with my other hand. Trying to walk, talk and chew gum all at the same time was a bit inconvenient. I thought

to myself, I wish I had a desk microphone or headset about now.

After the QSO I remembered I had a headset adapter box and a PC headset in W1ZE/M that I used to make hands free HF QSOs while driving down the highways. The headset adapter box was configured for my IC-706MKIIg and would not work on my base station FT-897D. I like the PC headset approach but I started thinking about a desk microphone.

I had seen PC (computer) desk microphones at Radio Shack, Walmart, Staples and other outlets at inexpensive prices. These microphones employ electric microphone elements and they usually have pretty good audio quality and have enough gain to drive most Ham transceiver audio input circuits.

While on a parts run to the Radio Shack store I looked at their PC microphones. My local RS store had a Case Logic PC desktop gooseneck microphone for just under $10. I purchased one and took it home. The next day   I noted that the local Walmart sold the exact same Case Logic microphone at the same price.

The Case Logic microphone comes complete with cord, plug and an on-off switch on the base. However I discovered that the supplied cable and plug will work OK with your PC/laptop but not with the average transceiver. My transceiver does not put a supply voltage (+2 to 8 volts) on the mic line and neither do most of the other brands of transceivers. Many provide that voltage on a separate pin in the microphone receptacle.   The Case Logic microphone cable only has two very fine stranded wires and the Mic+ line is also connected to the tip and ring portions of the connector.   So I unsoldered the cable from the on/off switch in the mic base and replaced it with a 2-foot length of two conductor plus shield audio cable.   One conductor went to the microphone + line via the on/off switch and the shield directly to the mic- line.   The second conductor was used to bring in the +5 volts from the transceiver to supply the microphone element.   I make a simple voltage isolation circuit and used the terminals on the on/off switch as a tie-point. The little circuit consists of a ¼-watt 1000-ohm resistor (R1) and a 16-volt 10uF tantalum capacitor (C1). The circuit allows the audio from the MIC+ element to pass to the transceiver microphone input circuit but not the supply voltage.
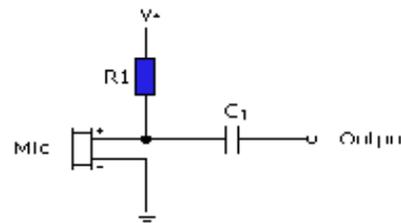
In my application I installed a 1/8" stereo plug on the mic cable and made-up small interface boxes with a PTT switch in it, then connected the box using a short length of flat 6 conductor Ethernet cable with an 8-pin Ethernet plug on it (that is what Yaesu

uses on the FT-897D). Your transceiver may use a different microphone jacks. You could use a three or four conductor (with shield) microphone cable and convert the on/off switch on the mic base to a PTT (transmit) switch using the additional conductor(s).

The results were gratifying. The audio from the homebrew desk microphone is more than adequate to drive my Yaesu transceiver and signal reports say the audio is very clean.   **73, Bruce, W1ZE/w6**

Were you a licensed Ham prior to May of 1988? If so, you should consider joining the Quarter Century Wireless Association, QCWA.

For more information about this special Amateur Radio organization, go to,

http://www.qcwa.org/

or contact the following MARA & QCWA members:

Steve Kercel, AA4AK George Szadis, K1GDI   Bruce Randall,W1ZE

K1MNW at WJTO

On April 12th The MARA's own technical guru Bill Messier, K1MNW reported that he has taken over as Chief Engineer at commercial free WJTO in West Bath. Bill also reports that on April 11th he installed the new WJTO/FM solid state 600W FM transmitter up on Oak Hill. It will have the same programming as the AM station in West Bath. Bill hopes to have it on the air with programming by the week of April 15th.

The FM stereo transmitter will broadcast on 98.3 MHz. If you like commercial free nostalgia music and oldies but goodies, take a listen. Also, if you are driving around the state listening to WJTO/FM forward a signal reports back To Bill on the 444.4 repeater or at: K1MNW@yahoo.com.

D-STAR Update

By Donnie Dauphin, WD1F

This update contains the following subjects in random order you may find interesting.

- KS1R D-Star Repeater Usage still rising..
- KS1R Outage / Repeater Building cleanup.
- W1EMA Status / My Trip up the coast.
- Bryan (N1OXG) Raspberry PI from FL Beach
- Jim N1IPA reporting missing D-Star Link to KS1R
- 1.2G DD Interest
- Auburn Update D-Star on Goff Hill
- KS1R improved internet seems likely.
- Any more information I can share?

The KS1R D-Star repeater continues to see more usage. This makes Bill (K1MNW) and I very happy to see D-Star to be a success in our area. Thanks everyone! Today's dashboard looks like:

Linked Gateways / Reflectors

Module	Linked to
A	unlinked
B	unlinked
C	unlinked
D	unlinked
E	unlinked

Remote Users

Callsign	User Message	Last TX on	Type
W1IF	Bob, N. Hampton, NH	D	DV AP
K1CGZ	Paul, West Bath, ME	B	DV AP

Last Heard

Callsign	User Message	Last TX on	Time
WD1F	DON FN53 MAINE USA	B	2013/04/11 21:49:14
KU1U	Cory KU1U Try QRP!	B	2013/04/11 20:09:41
N1IPA		D	2013/04/11 19:47:26
W1IF	Bob, N. Hampton, NH	B	2013/04/11 19:29:05
K1CGZ	Paul, West Bath, ME	B	2013/04/11 19:24:47
N1OXG	Bryan, Harpswell, ME	B	2013/04/11 17:51:44
K2LOT		B	2013/04/11 17:50:04
K1MNW	Thiq Is Oak Hill	B	2013/04/11 16:12:26
K1BR	Tim - Brunswick, ME	B	2013/04/11 07:05:46

Status as of 2013/04/11 22:05:20

Brief repeater outage. Over last weekend Bill (K1MNW) did some significant re-arranging / cleaning of his repeater building. I helped a bit on Sunday. This caused KS1R to be down for a bit.

W1EMA Status / Trip up coast
   Recently I took a trip to Clinton, ME. While there Charles (KB1HOZ) and I took a little ride around Clinton and did not do well direct to KS1R in Brunswick. When leaving Clinton I realized I was likely close to W1EMA. I then tuned in W1EMA and linked it to KS1R. It worked.. ..great and Tim (K1BR) answered my call.
   Based on my trip to Clinton I would say the W1EMA system was working great. I just tried to

bring up its dashboard and then link to it with no luck. I suspect this just means the internet went down and perhaps there is a component to that needs a reset. Terry (KA8SCP) replied that the repeater is likely working fine for local communications but the gateway pc or internet just needs a reset. I contacted Brit (AB1KI) and suspect it will be resolved quickly.

The W1EMA repeater is not heavily used but I see that changing a bit. I'm doing my part to convince Charles to purchase a D-Star radio. I like spending other people's money! Also Scott (AB1MC) is back in the area and has expressed interest in keeping tabs on the repeaters Health and Gateway functionality.

Bryan (N1OXG) Raspberry PI from FL Beach

Bryan was on a beach in Florida talking into the system via a raspberry PI access point.

Bryan send the picture below:

Check out Bryan's setup. What you see in the picture is a rechargeable supply for charging USB devices. Its powering a Raspberry PI in a case running software to connect to our D-Star repeater from the DVAP. I'm not sure where the internet access was coming from but perhaps the hotel's Wifi. Nice setup Bryan!

Jim N1IPA reporting missing D-Star Link to

KS1R

I received an e-mail from Jim (N1IPA) stating he is now on D-Star and could not find the KS1R Dashboard so he could register with us. As a result he registered at W5NGU. Jim pointed out one of the reasons he could not find our dashboard is because the information www.dstarusers.org did not list it. In fact our information showed as follows: http://www.dstarusers.org/viewrepeater.php?system=KS1R

With help from my two D-Star admin friends Terry (KA9SCP) and Aaron (KE5KAF) I now know how to update the dstarusers.org entry for KS1R. In the interest of full disclosure I already had the ability and forgot. So this is the second time Terry and Aaron have worked with me on this issue. Thanks to both of them for tolerating me.:)

Now our listing has all the links including a link to our club website at www.ks1r.org. Thanks Jim for pointing this out.

1.2G DD Interest

At our last MARA club meeting Steve Kercel (AA4AK) expressed interest in 1.2G DD (digital data). Since then I have had several conversations with Bill (K1MNW) on how difficult it would be to implement.

The 1.2G DD offers data only at an over the air rate of 125K. Ron (N1YAG) has experience with 1.2G DD and reports the realized speeds will not be that fast. I suspect this is because of the overhead of the Ethernet packet. The other thing to remember is this is half duplex (can send or receive but not both). So with that data rate what can we do with it? I'm guessing it will facilitate checking our e-mail or bringing up a static web page. It also provides a much

higher speed link to be used with D-Rats. D-Rats offers a chat / file transfer / messaging system for D-Star stuff. One of the most sited uses of this data link is support of emergency communications operations.

The rate may be slow compared to our broadband connections but when the internet is down it offers a computer to computer Ethernet link that is capable of transferring pictures, small video's, files, messages, etc.

To Implement 1.2G data we need:

- ID-RP2D   1.2G Data Repeater
- MX-37 or equal diplexer
- X5000 or similar Antenna

Then there would be the install, swap the antenna, etc. After talking with Bill it seems it should not be technically difficult with the exception of any potential mixing causing other problems. Bill reports we should use great care in selecting a frequency.

If you have interest in 1.2G DD mode please let us know.

Auburn Update D-Star on Goff Hill
The Androscoggin Amateur Radio Club has authorized the purchase of a DVRPTR board. I am on the waiting list. Bruce Given VE2GZI said he expects the next batch of boards should be arriving mid April. I am looking for about 125 feet of hardline for the D-Star repeater site if anybody knows somebody selling some, please let me know.

KU1U@USA.COM or   207-514-0202

The Andy Club has taken the analog 442.000 repeater off the air since it is malfunctioning. I have recommended they fix it and keep it as a deployable repeater for emergencies or public service events (such as the Beach to Beacon race). We must also allocate a frequency for the D-Star repeater and get it coordinated. Still a work in progress.

KS1R improved internet seems likely.
Bill (K1MNW) still reports efforts to get internet access on Oak Hill from a commercial provider are ongoing. Bill expects to have internet some time this summer. Our internet has been working good lately but as many reading this know already its provided from a WiFi link some 13 miles away.
http://www.ddrov.com/wirelesslink/index.html. I believe the long term plan will be to maintain the 13 mile link to be used as a backup in the event the repeater building looses internet.

Any more information I can share?
If you know of more information I can share that would be great. Please send it along. Thanks to all!
Donnie WD1F

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T S M U L T I O U T L E T S T R I P S A B Y
A C C E S S O R I E S F G A D A P T O R S A
K E Y I N G H J G E N E R A L C L A S S A D
C O M M U N I C A T E S C I N O M R A H N D
U R A O N Z O U P R E D N A B I R T Z C T L
D C O R S R E D N A B L A U D Y V S W D E E
I D E S H S Q T Y V H C T I W S K Y R X N I
X B G E S M T N U O M T E N G A M A E E N F
E S F C R N D U P L E X R W O Z O N C L A S
L E I O S T E C Z R U A X L X B C A I B B R
F N J D K M Q E F X D Z Y R Y D T L E A A E
I O C E L P A L D I A M H E G W I Y V C S T
B H N I A G Y H O L M J K F R E U Z E L E E
E P A D D L E W K U E L I F E V C E R I U M
R D E F O W I N D O W M O U N T R R K A V T
G A M O N O B A N D E R E B U C I U P T L T
L E P G V E R T I C A L H T T J C Q R G S A
A H L R M H N P O F G A N N E T N A P I H W
S K D I T D O T Z Y L P P U S R E W O P M R
S O J M U L T I B A N D Y A L P D N U O R G
C O N V E R T E R E V I E C S N A R T S Q N
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ACCESSORIES	GENERAL CLASS	RECIEVER
ADAPTORS	GROUND PLAY	SWITCH
ANALYZER	HAM	TRANSCIEVER
ANTENNA BASE	HARMONICS	TRIBANDER
BUFFER	HEADPHONES	TUNER
BUTTERFLY LOOP	HYGAIN	UBOLTS
CIRCUIT	KEYBOARD	VERTICAL
COMMUNICATE	KEYING	WATTMETERS
CROSSNEEDLE METER	MAGNET MOUNT	WHIP ANTENNA
DIPOLE	MONOBANDER	WINDOW MOUNT
DIT DOT	MORSE CODE	
DUALBANDS	MULTIBANDER	
DUMMYLOADS	MULTIOUTLET STRIPS	
DUPLEX	PADDLE	
FIBERGLASS	PIGTAIL CABLE	
FIELD DAY	POWER SUPPLY	
FLEXIDUCK	RADIO	