## MARA members participate in SKN

**O**n New Years eve several MARA members were heard on the bands participating in the long established event called Straight Key Night (SKN). Harry (N1TTT), Marjorie (KX1I) Steve (AA4AK) and Bruce (W1ZE) were heard calling CQ SKN and making contacts.

For those of you who are not familiar with the event, it is a casual affair that requires that you make QSOs using a straight key (telegraph key). There is no score there is no winner and it is not a contest, just a fun event. Many hams around the US and Canada use it to brush up on their CW sending skills with a straight key and some like to dust off their old vintage heavy-metal rigs and put them back on the air for an evening.

This year it appeared that the word got out because the CW portion of the 80 and 40 meter bands were packed with folks calling CQ SKN and the QRM was three S-units deep.

If you missed this New Years Eve activities, circle December 31 on tour 2010 calendar and join in the fun next time.

# NAVTEX,
## what is it?
### By Bruce W1ZE

**H**ave you ever tuned your fancy rice-rocket HF transceiver below the AM broadcast band and started hearing what sounds like a PSK31 signal around 518 kHz and wondered what it was? What you would be hearing is a maritime service called **NAVTEX**.

The **NAVTEX** service is used for automatic broadcast of localized Maritime Safety Information (MSI) using radio Telex, a Narrow Band Direct Printing, or NBDP. This service operates mainly in the MF radio spectrum just around the old 500kHz Morse maritime Distress frequency.

The 518 kHz NAVTEX service can be heard easily up here in Maine 24-hours a day. At night using you're your 80-meter dipole, or in my case my 160-meter inverted-L I can receive it 599+ and you may be able to copy the service on 490 kHz, a non-English (French) broadcast from Canada. NAVTEX services the tropical zones (Caribbean & Central America) on 4209.5kHz just above the 75-meter band.

All you need to decode the service is a transceiver or receiver in upper sideband; a good wire antenna, a PC/laptop and a

free-bee decode program called "**NAVTEX Decoder v2.1.5**," from the following: http://www.frisnit.com/navtex/index.php. If your station is already using a multi-mode digital program such as MixW or SeaTTY just set it for AMTOR

If you are already into PSK, TTY, SSTV and other soundcard digital modes the sound card interface between your rig and PC will do just fine with the above program. If you do not have a soundcard interface unit, install the program and just run an audio cable from your transceiver (receiver) speaker output to the microphone or line-in jack on your PC or laptop.

After you have hooked everything up, tune your rig to 517kHz in upper sideband (USB) and you should be able to hear and decode the service.

The service provides weather alerts, marine hazard warnings and other messages to mariners.

*73 & Happy SWLing Bruce, W1ZE*

# The W1ZE Soundcard Interface revisited

**By Bruce Randall, W1ZE**

**G**eorge Szadis, K1GDI, one of the founding members of the MARA thirty years ago, has a renewed interest in the hobby. For the past several months he has set-up a HF station, strung up antennas and enjoying getting on the air and making QSOs. He thought that operating in the new (to him) digital modes like RTTY, PSK and MSFK would be fun and started picking my tiny brain for info on how to get started. I was happy to do that.

Some time ago in the Squelch Tales newsletter I entered a column on how to build a simple and effective soundcard interface that would facilitate those folks that want to get started operating in the digital modes and SSTV without investing a lot of money in commercial built interface units.
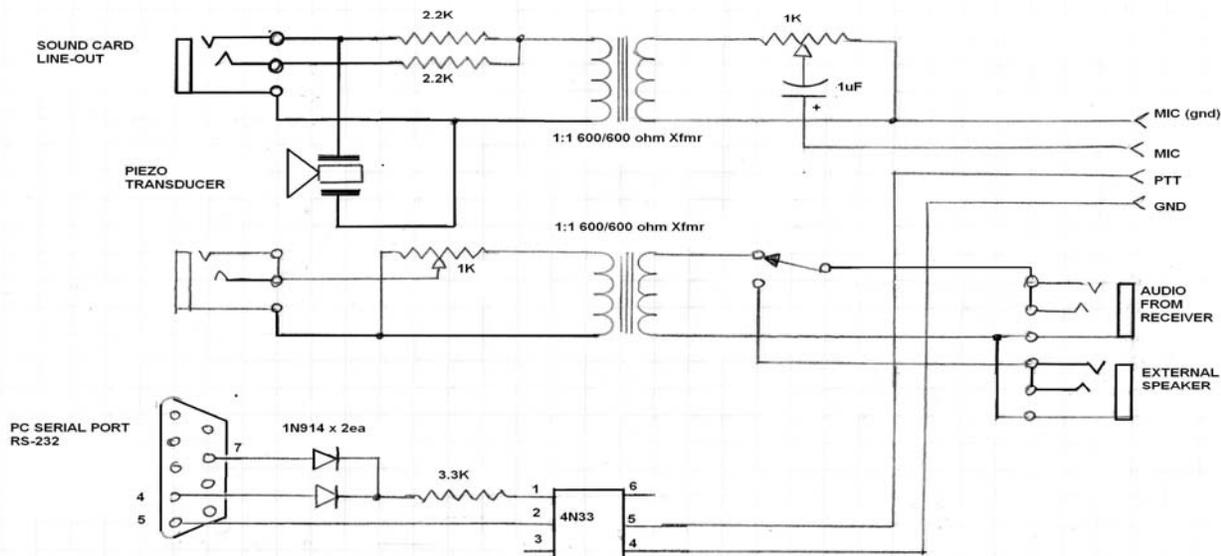
Since then I have added some improvements to my station interface and it works pretty well using almost all parts available from the "Shack" (a.k.a., Radio Shack). Folks, let me tell you that it is no small task these days building ham radio items with the Shack drastically downsizing their parts department. I expect to see them drop electronics parts all together in the not too distant future.

For a year or two I used a little Rigblaster Nomec interface and it did the job OK but I wanted a few more features in an interface but did not want to invest over a hundred bucks to get them.

The following schematic is the device I came up with. And it interfaces well with my Yaesu FT-897D transceiver. The three major things in the interface are the coupling transformers and the keying circuit.

**Transformers:** The small transformers in the drawing are from Radio Shack. The 600 to 600 ohm isolation transformers are RS#273-1374. If you want to save a few bucks, here is an idea. The next time you are at the town dump most likely they will have a stack of discarded PCs. Snag up a couple that have sound cards and take them back home. Remove the sound cards and you will find one or two 600:600 isolation transformers on them. Carefully unsolder and remove them from the board. You will need two.

The other transformer in the drawing calls for a 1k to 8-ohm mini output transformer RS#273-1380. You can

The schematic shows labels: SOUND CARD LINE-OUT, 2.2K, 2.2K, 1K, 1uF, 1:1 600/600 ohm Xfmr, MIC (gnd), MIC, PTT, GND, PIEZO TRANSDUCER, 1:1 600/600 ohm Xfmr, 1K, AUDIO FROM RECEIVER, EXTERNAL SPEAKER, PC SERIAL PORT RS-232, 1N914 x 2ea, 3.3K, 4N33

substitute a 600:600 in place of it. At the audio levels you will work with the mismatch is not a problem.

The transformer is in the circuit for isolation not impedance matching.

**Keying Circuit**: The schematic shows a keying circuit using a 4N32 or 4N33 optical coupler (opto). Radio Shack no longer has them. You can order one or

# PTT keying mods



two from an on-line supplier or you can make a simple keying circuit using a 2N2222 transistor by itself or in conjunction with a small 5VDC relay for

better isolation between your transceiver and computer. See keying circuit mod drawing.

Why Isolation you ask? Because it is a good idea to keep the grounds and equipment voltages in the radio and PC from beating against each other and causing hum and distortion in your transmitted signal.
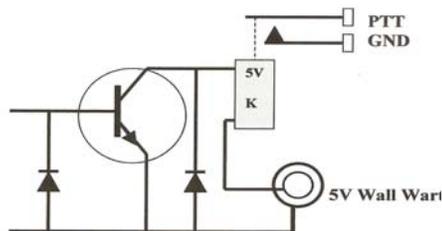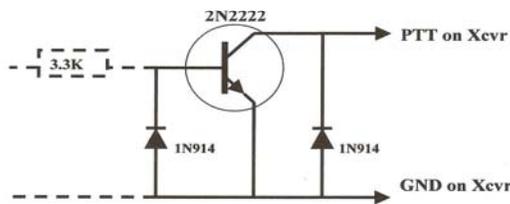
On the basic schematic you will note a Piezo transducer. I added this to my interface so I could monitor the transmit audio coming from the computers soundcard audio out (lineout). The transducer is still available at the Shack.

I find that this little interface works pretty well for me. Since my FT-897D is dedicated to digital modes most of the time I couple the interface directly to the microphone jack on the rig. If you wanted the ability to switch a microphone in and out of the circuit, most likely you could do it with the addition of a mic. jack on the interface and a 3PDT toggle switch to switch the mic+, mic- and system ground lines.

Have fun and build something, it's good for the hobby.          *73, Bruce*

# *Mid Winter Ham Flea markets in New England*

**February 6th**: The Augusta Amateur Radio Association's, (AARA) annual **Winterfest 2010 flea market** will be held at the Crystal Falls Dance hall on route 17 in Chelsea, ME, just east of the Togas, VA facility. Talk-in on the 146.67 (pl. 100.0) repeater. For more info Go to **www.w1tlc.com**, or contact Bill Crowley, K1NIT at 207-623-9075

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**February 13th:** The Algonquin Amateur Radio Club is again holding its winter Ham Radio Flea Market at the Marlborough Intermediate Elementary School in Marlborough, MA. This year, the flea begins at 9:00 AM on Saturday, February 13 (6:30 AM for vendors). General admission is $5. Vendor tables are $15 before Feb 5, or $20 at the door and each table includes one admission. (details at www.n1em.org)

If you could forward the information in the attached flyer to your club members, we'd greatly appreciate it. Also, if your club has open events you'd like to promote, please send a notice to the following email address: president@n1em.org We'll include you event in our club's email reflector or newsletter. Thank you,

Tim Ikeda - KA1OS
President, Algonquin ARC

# VE Sessions for 2010

**Provided by Bryce Rumery, K1GAX MARA & PAWA VE Liaison**

All MARA sponsored ARRL-VEC exam sessions for 2010 will be held at the Midcoast Chapter of the American Red Cross, 16 Community Way, and Topsham.

If you plan to take an exam, please contact and sign-up in advance with **Bryce K1GAX at (207)799-1116** or email at **K1GAX@juno.com** prior to the scheduled exam.

. Here are the scheduled exam dates for 2009:

*Monday, 1-Feb-2010,* **Time: 6:00 PM**
*Monday, 3-May-2010* **Time: 6:00 PM**
*Monday, 2-Aug-2010* **Time: 6:00 PM**
*Monday, 1-Nov-2010* **Time: 6:00 PM**

If you want to become a VE, or already a VE and want to help out at an exam session, please contact Bryce at the above telephone number or email address.

# "Center of Activity" Frequencies for Disaster Communications

The International Amateur Radio Union (IARU) Administrative Council (AC) held its annual meeting in mid-October, 2009, in Christchurch, New Zealand. There has been a movement in the last several years to try to identify "centers of activity" frequencies across all three IARU regions that can be used in disaster relief operations. It has at times been difficult to arrive at a consensus on what frequencies should be used. The IARU Administrative Council noted that all three regions have now reached consensus on three global Center of Activity (CoA) frequencies for use in the event of emergencies: 14.300, 18.160 and 21.360 MHz. When no emergency operations are being conducted, these frequencies are open for normal amateur usage. However, GAREC-09 calls upon IARU member-societies, among others, "whenever emergency communications are being conducted on frequencies that propagate internationally, to use any available real-time communications channels, including but not limited to e-mail bulletins, web-sites, social networking and DX-clusters to draw the attention of the largest possible number of Amateur Radio operators to on-going emergency communications, in order to avoid interference with emergency traffic." Member-societies are being encouraged to develop an effective method of notifying amateurs within their own country of any such emergency traffic being handled on the CoA frequencies, or elsewhere in the amateur bands. - **IARU Electronic Newsletter, November 2009**

# MARS Name Changes

On Wednesday, December 23, the Department of Defense (DoD) issued an *Instruction* concerning MARS, effective immediately. This *Instruction* gives the three MARS services -- Army, Air Force and Navy/Marine Corps -- a new focus on homeland security and a new name: Military ***Auxiliary*** Radio System. The *Instruction* is the first major revision to MARS since January 26, 1988 -- as such, the first revision since the 9/11 attacks and Hurricane Katrina, two major events that changed the way Amateur Radio dealt with emergency communications. In the past, MARS had focused primarily on emergency communications and health and welfare support. The DoD's *Instruction* now directs the three MARS services to provide "contingency radio communications" to support US government operations, DoD components and "civil authorities at all levels," providing for national security and emergency preparedness events. MARS units will still continue to provide health and welfare communications support "to military members, civilian employees and contractors of DoD Components, and civil agency employees and contractors, when in remote or isolated areas, in contingencies or whenever appropriate." MARS must also be capable of operation in "radio only" modes -- without landlines or the Internet -- and sustainable on emergency power (when public utility power has failed); some MARS stations must be transportable for timely deployment. - **ARRL Letter**