

N1MM Logger Operation Notes

USING THE TELNET WINDOW AND ASSISTED MODE

Many thanks to W2GN, VE3TW, VE3NR, Internet notes from VE3KI, and other Internet sites, for much of this information.

Using the Telnet window to spot needed new stations and multipliers in the Bandmap, and spot needed multipliers in the Multipliers window, can greatly increase your average contest scores, and contact rates. If you combine this with the SO2V mode, where you use both receivers in the transceiver, you will increase your scores/rates yet again.

When properly done, Telnet will spot stations on your bandmap. New stations will be in blue, new multipliers will be in red. Other stations will appear in the Telnet window itself, but will be grayed out.

See "USE OF THE BANDMAP" under "OPERATING NOTES", for insights into use of this phenomenal utility.

TELNET WINDOW CONFIGURATION

Here is an Internet listing for the N1MM documentation on configuring and using the Telnet Window:

<http://n1mmplus.hamdocs.com/tiki-index.php?page=Telnet+Window>

The TELNET window requires extensive configuration, but need be changed in a minor fashion only, once it is done, for each contest.

Note: The Telnet configuration will control what is posted on the bandmap, *not necessarily* what appears in the Telnet window itself. **After configuration, the Telnet window can be minimised.**

Cluster choice.

Here is an Internet listing for International Clusters.

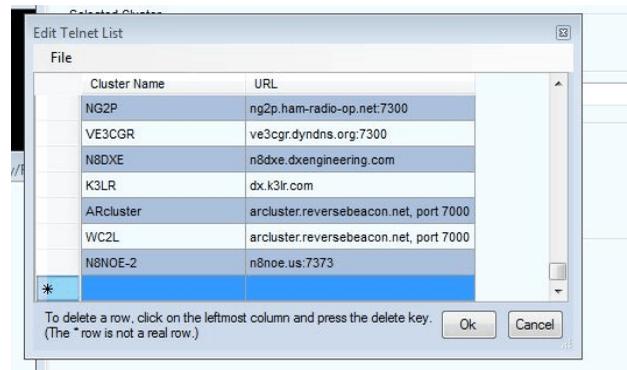
<http://www.dxcluster.info/telnet/index.php>

Choosing the Reverse Beacon Network (RBN) cluster will greatly augment the rate of contact spotting. An improved choice is the N8NOE-2 cluster (for those of us in the Northeast of North America), which combines attractive features of the DX-Cluster system with CW Skimmer spots and the Reverse Beacon Network.

The N8NOE-2 cluster must be added to the list of available clusters. Here's how to add it (or others).

A. Click on the Clusters tab in the Telnet Window.

B. Be sure to use a wide window display for Telnet. At the right side of the "Selected Cluster" slot, you will see the Edit List button. Click on that.



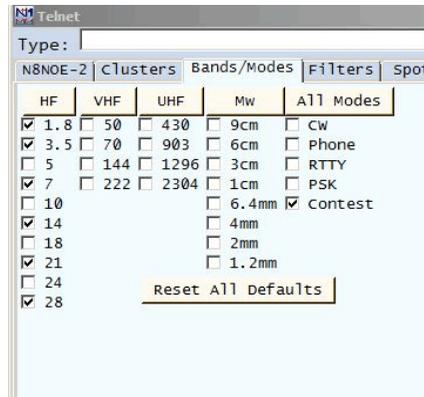
C. You will now see the Edit Telnet List. At the bottom, there is an empty row. Type in the name of the cluster (e.g. N8NOE-2) at the left side, and the URL for the cluster (n8noe.us:7373) at the right side.

D. Click OK, then Connect to N8NOE-2.

E. Tick on Automatically Logon.

Configure Bands/Modes.

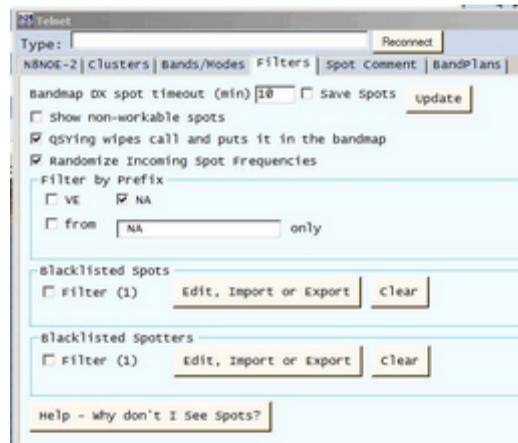
The Telnet window can be configured to display only the bands and mode you desire.



- A. Click on the Bands/Modes tab in the Telnet window.
- B. Tick on only those that are relevant for your particular contest. Include the Contest option at the right side.

Configure the Telnet Filters.

- A. Click on the Filters tab in the Telnet window.



B. If tuning your receiver, rather than using the keyboard to move up and down the bandmap, tick on Show non-workable spots.

C. Tick on QSYing wipes call and puts it in the bandmap.

D. Tick on Randomize Incoming Spot Frequencies.

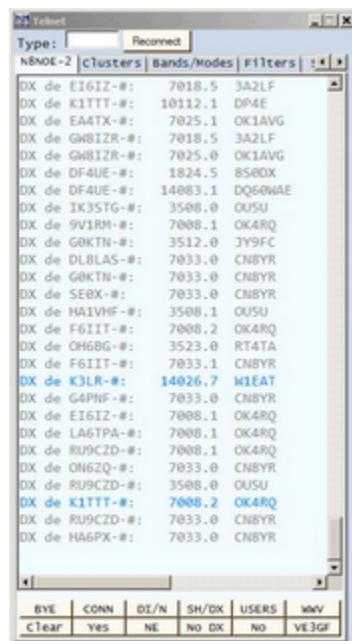
E. In the Filter by Prefix area, tick on from, then type in "K1 K2 K3 VE3" (These are the northeastern areas of NA. You want to see cluster spots only from these area, if you live there)

This will ensure that postings to your bandmap will come only from clusters in your area

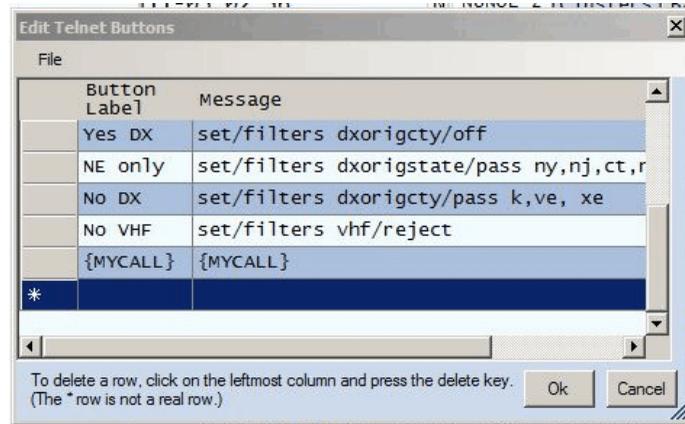
F. Click Update each time you change filter settings.

Configure target stations.

Telnet can be configured to show only the correct stations, from the correct areas (local, DX, etc.) At the bottom of the main Telnet window, right - click the desired buttons (NO DX, NO VHF, etc.)



Across the bottom of the Telnet window are twelve buttons which can be individually programmed with stored messages to be sent to the Telnet node. Right-click in the button area to bring up the editor.



Click on NE Only button in the Button Editor (if you live in NE NA).

Configure Multipliers.

With Telnet operational, N1MM+ can display columns of available multipliers (ARRL sections, counties, etc.). It will show you what multipliers you need (blank color, or *red* box beside the listing), and which you have already worked (blue).

A. N1MM - Window - Multipliers

The multipliers shown with a red box beside them have been spotted by Telnet. If you right-click on a red box, Telnet will open a window that shows you *where* (frequency) the multiplier has been spotted, and the time *when* it was spotted.

Click on the station/frequency in the Multiplier display, and your transceiver will be moved to that frequency/band.

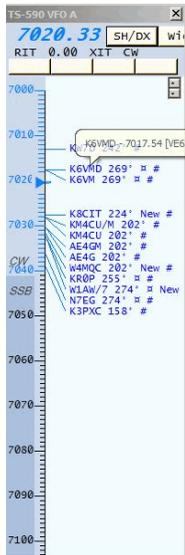
Configure Bandmap spot timeout

You will find that, after some operating time, the bandmap will fill up with callsigns, making it less useful. If you have spots time out after a reasonable period, Telnet will replace them if they continue to remain active.

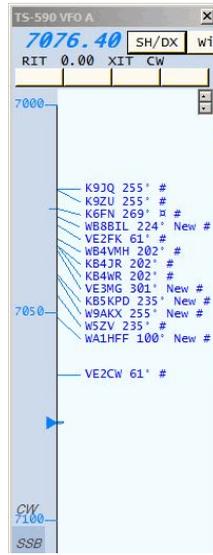
A. In the main Telnet window, enter 10 in the slot Bandmap DX spot timeout (min).

Configure the Bandmap for CW

Particularly on 40 Meters, you may find the Telnet does not fill up the entire active CW band with spots. This is due to "Bandplan" considerations, where on 40M, the CW band is only extended to 7040KHz.



Bandmap
before extension

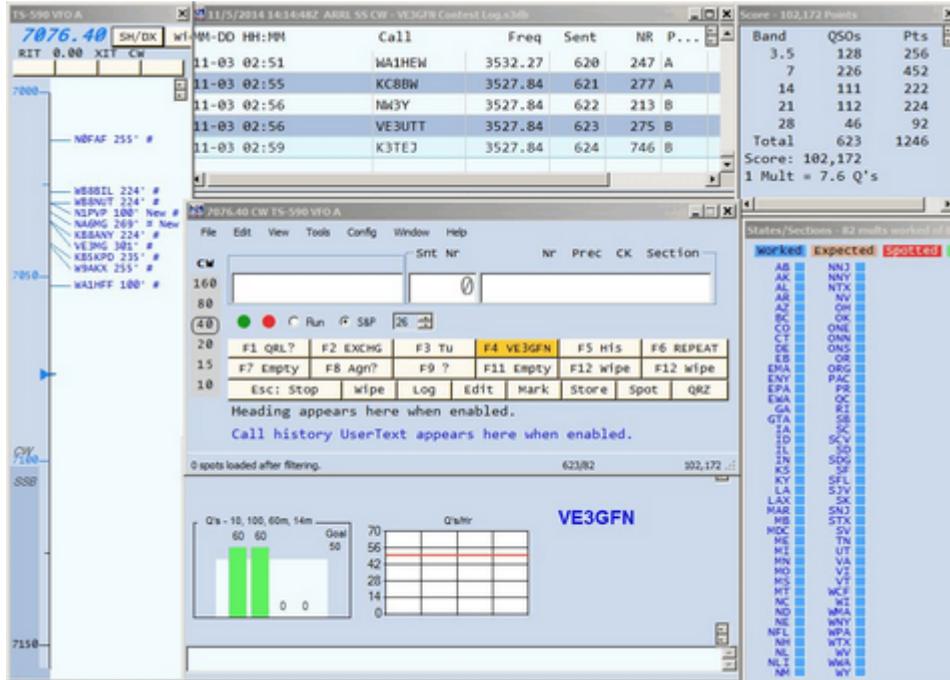


Bandmap
after extension

A. On the Bandmap, right-click on the displayed frequency of 7100 KHz.

B. Left-click on Set as CW sub-band max freq.

OPERATING NOTES



USES OF THE BANDMAP

A. In S & P mode, when you work and log a station and tune elsewhere, that station is placed on the N1MM bandmap, in a grey color. When taking another spin up/down the band, that info will tell you almost instantly whether you have worked a station. As you tune the receiver, you will find stations you have worked will also appear above the callsign entry slot, colored in grey.

Note: If you are using SO2V, you will need a large monitor.

B. When a new signal pops up on your panadaptor, if there is nothing on the bandmap, then go get that guy. If a station has a pileup and you can't get through, tune away, and his call will pop up in the bandmap with the color indicating the value of the qso (make sure you open the N1MM - Config tab and check "QSYing wipes the call and spots QSO in bandmap").

This makes it easy to go up and down the bandmap later and mop up QSOs.

C. In S & P mode, when stations are spotted on your bandmap by Telnet, you can click on each spotted station with your mouse, and the transceiver will at once move to that frequency. If a band change is required, the transceiver will adjust frequency, mode, antenna tuner on/off, antenna, and antenna tuner adjustment, to comply.

D. In S & P mode, when stations are spotted on your bandmap by Telnet, you can very quickly change operating frequency to that station by pressing CTRL + up arrow/down arrow, to move up or down the bandmap. This is much faster than using the mouse, or tuning the receiver. (The callsign you click upon may not be there still, or you may find a different callsign. However, the chances of finding a new QSO by using this tuning method are very high, so it's worth pursuing on a regular basis).

Note: Telnet can make errors in spotted callsigns. Be sure you check the callsign before logging it.

E. When/if the Bandmap gets crowded, use the mouse scroll wheel, or the numeric keypad "+" key, to zoom in on it.

F. When the Bandmap becomes too crowded, you can right-click on it, then choose Remove all spots this band only. They will be replaced very soon, by Telnet.

G. If SO2V operations are implemented, one receiver is always active (the transmitter is controlled by that frequency) while the other is considered inactive, even though it is producing received signals.

The frequency of the inactive receiver (S & P receiver) can be shifted from one spotted station on the Bandmap to the next, by using CTRL+SHIFT + up arrow/down arrow (up or down the Bandmap).

USE OF SO2V (Single Op Two VFOs)

Modern transceivers, such as the Elecraft K3, allow both the main receiver and the sub-receiver to be controlled by N1MM, giving an operating capability that approaches SO2R (Single Op Two Radios). At this point, there does not seem to be an operating category in contests for SO2V.

N1MM - Config - Configure Ports, Mode control ..etc.

Implement SO2V. You will see two contact entry windows on the screen, instead of just one. Each will apply to one of the two receivers in your transceiver.

In SO2V, one receiver is used for S & P operations, while the other is used to call CQ at the same time, or for S & P as well.

Using the K3 as an example, the 2nd receiver will be referred to as the "Sub Receiver".

The frequency of the inactive receiver (S & P receiver) can be shifted from one spotted station on the Bandmap to the next, by using CTRL+SHIFT + up arrow/down arrow (up or down the Bandmap).

SO2V, like SO2R, requires extensive practice, before it will increase your contact rate capabilities.

HEADPHONE SYSTEM

Use stereo headphones, with or without dual external audio filters. VFO A plays in the left headphone and VFO B in the right.

For some operators of SO2V, it is preferable to configure the Sub Receiver to always be on. N1MM - CONFIG - Sub receiver always on

SO2V OPERATING PROCEDURES

I've come to the conclusion that it's almost impossible to be running on one receiver, while actually tuning the other receiver looking for S&P.

If you are repeating your CQs often, there is little chance of copying callsigns with the other receiver, whether or not you've turned your monitor off/down.

If you are repeating your CQs with enough time between them to do active S&P listening, it's quite likely you will lose your run frequency. Seven seconds seems a good compromise.

The trick is to run with the Main receiver, which gives you RIT capability, something I find is almost essential. You don't need the bandmap for that receiver, so you turn it off. Lock the frequency.

You do search and pounce with the Sub receiver, turning on that bandmap, and using Telnet to fill that bandmap with postings, all of which are new stations for you. After using "\" to shift the receiver to the Sub receiver (does not affect your running on the Main receiver) you can use CTRL + up/down arrow, to move the Sub receiver up and down the bandmap, stopping at each new posting.

When you find one you can work, hit <ENTER> to send your call. This does not enter the contact in the log yet. If he doesn't come back, continue to send your call, or stay there until the pileup decreases while sending CQs with the Main receiver. To call the S&P station again, hit "\" to again shift to the Sub receiver.

As soon as you hit any key that sends messages on the alternate receiver, the TX will switch to that active receiver. When the S&P station finally comes back to you, hit <ENTER> to send your exchange and log the contact, then go repeat the entire process to find another S&P contact, while running as well.

Note: You can only use CTRL + up/down arrow to move the Sub receiver up and down the bandmap, when you *are not transmitting* with the Main receiver.

It seems you need only use the "\" key to switch back and forth.

SO2V KEYSTROKES

\ (jump between entry windows). Does not affect TX. If the Sub receiver is configured not to always be on, this keystroke will turn it on. (See last page for excerpt from N1MM manual)

~ (turns Sub receiver off and back on, even if it has previously been configured to always be on). This is the same as pushing the SUB button.

ALT + F10 (Interchange VFO frequencies, whether the Sub receiver is on or not). This is the same as the **A/B** button on the K3.

CTRL + left/right arrow or the **PAUSE** key. (If you want to change the TX and RX focus together). This will also turn on the Sub receiver, if it has not previously been configured to always be on)

~ (turns Sub receiver off and back on, even if it has previously been configured to always be on). This is the same as pushing the SUB button.

OTHER OPERATING IDEAS WITH SO2V

On CW, you will find it easier to use both receivers if **you have the transceiver set for full QSK break-in.**

What you can do most of the time is to Search and Pounce up or down a band. Use of a panadapter makes this easy. Park each VFO on a signal and listen for the callsign. Type the callsign in the appropriate entry window (jump back and forth between windows with the "\ " key) and answer the first station that calls.

Whatever receiver you use to find the station, if the TX was on the *other* Receiver frequency, it will shift to the calling Receiver. Tune away with that VFO to another signal while waiting for the second station.

At first, you will occasionally call on the wrong VFO, but it quickly becomes second nature. Sometimes, you will have to ride the volume controls to copy one of the stations; You can have the K3 set up so that the large AF knob controls the Sub receiver and the smaller one controls the main, or the reverse.

Two tricks that help when starting out with SO2V. The first is to use your volume controls strategically. When a CW signal in each ear overwhelms you, just turn one of the volume controls down so as to have a single signal to concentrate upon. You can do the same with the r.f. gain controls. It is easy to forget to turn the volume back up, however.

The other trick is to go to the Config menu and make sure to uncheck Subreceiver always on. Then use the tilde key "~" to turn the sub on or off. Do this when trying to copy a signal on VFO A (green bar on the P3 panadaptor screen) and something heard on VFO B is interfering. This helps a lot, and also doesn't require removing your hands from the keyboard.

For running, you can have N1MM repeat CQs automatically.

N1MM - Config - CQ Repeat - Set CQ repeat time.

Set the CQ repeat time a little longer than normal, and start a repeating CQ using VFOA (Main, for example). If nobody answers, press the \ key to enable the Sub receiver and tune the band.

Pressing \ again will change the RX focus back to VFOA and turn off the Sub if Config - Sub receiver always on is not checked.

If you do not find someone to call before the CQ timer expires, the program will call CQ again on VFOA. With RX focus on VFOB (Sub) Entry window, **typing a letter will cancel the repeating CQ running on VFOA.**

Pressing a function key to call someone or send an exchange will automatically switch the TX focus to the proper VFO prior to transmitting.

If someone answers your CQ while the RX focus is on VFOB (Sub), press the \ key to change the RX focus prior to entering the callsign. If you want to change the TX and RX focus together press the **PAUSE** key.

SO2V is not useful when the bands are hot, and you are working a high rate of running or S & P. However, if things slow down, as they often do late at night or late in the contest, then while you are CQing on VFO A and find you have to send CQ several times before anyone shows up calling you back, you can turn your second receiver on and start using it to S&P up and down the band while you keep on CQing.

After your transmitter stops at the end of the CQ message, in SO2V you have two receivers both active. One is on your transmit frequency, listening for someone calling you back.

The other one is somewhere else on the band, looking for a station CQing that you can call.

Suppose: (1) no-one answers your CQ and (2) you find someone on VFO B that you haven't worked yet, and they are calling CQ or just about at the end of a QSO.

In that case, what you can do is switch to the VFO B entry window (with the mouse if you are mousing, e.g. in RTTY, or with the \ key if you are keyboarding) and have (or try to have) a QSO on the VFO B frequency.

Once that QSO is completed (or as soon as the other guy comes back to someone else instead of you), you switch back to VFO A, hope that someone hasn't taken over your run frequency while you were away, and send a CQ again to repeat the whole process.

You can also use SO2V to S&P with two receivers at once. Tune one up the band and the other down the band at the same time, and simply decide which one to use based on where you hear a new station to work first. You can use the \ key to jump back and forth between the two entry windows.

DURING THE CONTEST

1. To edit a logged contact: (**QUICKEDIT**) Double-click on the entry requiring edit. The entry information will again appear in the contact entry window.

(Highlight entry, then **CTRL - Q**)

2. To eliminate last QSO from log: Left - click on contact to highlight it, then right - click - choose DELETE ENTRY. (**CTRL - D**).

In both cases, you will be prompted before the entry is deleted.

3. CW speed up/down: **Page up/Page down**

4. Switch between S&P and running: Click the RUNNING box at the left side of the entry dialogue screen.

(**ALT - U**) Note that the program will switch you back to S&P, if you change the radio frequency.

5. To indicate a new multiplier, N1MM will change the callsign entered from BLUE to RED, or change it to RED if the SECTION/COUNTRY is a new multiplier.

6. Callsigns previously worked will appear above the callsign entry window as you tune through their frequency.

Duplicate callsigns entered in the window will elicit a **DUPE** message both in the **CHECK** window, and the callsign entry area. The entry will vanish as you tune away from that frequency.

When using ESM (Enter Sends Message) N1MM will not allow you to call or work a dupe station, (unless you have enabled "Allow dupes") when you press ENTER.

7. Callsigns entered and called, but not worked, will appear on the bandmap in RED. You can click on them later, and the radio will return to that frequency, with the callsign already entered in the callsign entry window.

8. If you change a logged callsign to that of a DUPLICATE call, N1MM will mark it **DUPE**, and let you delete it.

9. While RUNNING, you can use the **ENTER** key, as well as **F1**, for calling CQ.

10. When using the contact entry window, you can use **SPACE BAR** or **TAB** to move quickly through the different parts of the entry window, much faster than re-positioning your cursor with the mouse.

11. If you click on a callsign in the "Super Check Partial" window, it will appear in your callsign entry window. This works best with partial callsigns. This could be a way of making error corrections in the callsign entry area.

MISCELLANEOUS

1. Turn on the radio before implementing N1MM. Otherwise, the program may not find the radio information.
2. To transfer configuration settings from one computer to another, transfer the N1MM.ini file. You will also want to transfer any database and function key files you have created, and any contest folders.
3. If you try to run N1MM while another program is accessing your transceiver, N1MM will burp, and the next time it runs properly, may not show your various windows properly.

The fast solution is to copy your N1MM Logger .ini file (you *did* save a copy external to the computer, didn't you?) back to the main N1MM folder.

REFERENCE SECTION

(A) BACKING UP YOUR LOG DURING THE CONTEST

1. Periodically through the contest, N1MM - **FILE - EXPORT - EXPORT ADIF TO FILE** using a flash drive or some external media to store the file. This gives you a copy of your ongoing log, external to the hard drive.
2. If you've had a crash, and N1MM is again working, or you have a second computer with N1MM on it, configure N1MM for the contest you've been running, in all respects.
3. Using N1MM, **FILE - IMPORT - IMPORT ADIF FROM FILE**, and you'll see your log window fill up with the imported data. However, if you have a SCORE SUMMARY window open, you will see that the contest has not been scored.

4. Using N1MM, use the menu option **TOOLS - RESCORE CURRENT CONTEST**, and you'll see your score come up in the **SCORE SUMMARY WINDOW**, after it's been calculated.

(B) USING CALL HISTORY FILES

The following dialogue is taken from the Arizona Outlaws web site

“Q. What is a Call History File?

A. A Call History file is a formatted text file which can be imported into N1MM Logger to assist the user in pre-filling certain required contest information.

Q. If you use Call History, how can you be assured it is accurate?

A. You can't. A Call History file is only as accurate as its creator makes it to be and as recent as the data contained. Typically, it's a "garbage in, garbage out" situation. User must beware. People move, call signs change, names given change, etc. No way can a Call History file be 100% accurate.

Q. So, if I use a Call History file I don't have to copy an Exchange?

A. Nothing could be further from the truth. You **MUST** copy the Exchange to make sure the pre-filled info is correct. All the Call History file will do for you is pre-fill some fields. In most cases, and with a well researched Call History file, it will be correct info. In some cases it will not. It's up to you to correct the info so a clean QSO is in the log - - one you will get full credit for.

Q. OK, I want to take the Call History plunge. What do I do?

A. The first thing is to **download** a pre-made Call History file. Several are on the AOCC website. Let's use the Call History file ARRLSSCW2008.cvs as an example.

1. Go to <http://www.arizonaoutlaws.net/downloads.html> and look for ARRLSSCW2008.cvs, or a similar call history file. This file is one I made from the official ARRL SS Results from 2008. It shows the 1423 entrants who actually submitted a log and the recorded data for each (Call, Check, and Section).

2. Left click on "Click Here". The file will be downloaded to your default "Internet downloads" folder. Now, transfer this file, using a file manager (Microsoft Explorer?) to the N1MM Logger main folder.

3. The ARRLSSCW2008.cvs Call History file is now saved in your N1MM Logger folder.

Q. Now what?

A. Now we get N1MM Logger to **recognize the selected Call History file**, so it can help you in the ARRL CW Sweepstakes.

1. Boot N1MM Logger. Be sure N1MM Logger is showing the logging file for the contest you wish to run.

2. In the Entry window, go to Config and check **Call History Lookup**.

3. In the Entry window, go to File -Import -Import Call History and choose All files from the dialogue window. Then, select ARRLSSCW2008.cvs from N1MM Logger folder. Click on Open.

4. A few moments later you will see, at the bottom of the Entry window, the words "1432 (or a similar number) Callsigns Imported".

This tells you that N1MM was successful in importing the ARRLSSCW2008.cvs Call History file you loaded.

Q. OK, how do I use this now-imported Call History file?

A. To see how valuable Call History can be, let's use an example.

1. Type **K7WP** in the Callsign field (the far left box) of the Entry window.

2. Hit the Spacebar.

3. What you should see in the Exchange field (far right) is **61 AZ** .

4. What that tells you is, in 2008 ARRL SS CW, K7WP used **61** as his Check (the last two digits of first year licensed) and **AZ** as his ARRL Section. Q. What do I do next?

A. Using our example above, with **K7WP** as the station being worked, and a **61 AZ** in the Exchange window, and after your exchange is sent (if in Run mode) or before you send your Exchange (S&P mode);

1. Since N1MM has the ability to sort out the SS exchange, no matter what order it is placed in the Entry window, all you have to do is type the QSO Number received and the Precedence anywhere in the far right entry box. Then verify the callsign to be correct as well as the Call History info displayed. Then hit Enter.

2. Assume you hear Number **146** and an **A** Precedence. Type **146A** (no space need be typed between Number and Precedence.

3. Verify that **K7WP** is indeed the callsign sent in the Exchange.

4. Verify that K7WP is sending **61 AZ** for Check and Section.

5. Hit Enter. N1MM should now organize the Exchange data and show it in the proper columns of the Log.

Note: If you find your cursor in the wrong window, for any reason, remember that the SPACE BAR will quickly move you between windows.

Welcome to the world of Call History file usage!

Note: After the contest, you can update your Call History files with corrected information: N1MM - Tools - Update Call History from Current Log.

Repeating the Cautions:

You cannot 100% rely on Call History to be correct. The particular Call History file used in the example was correct last year, as all of the data comes from ARRL's own contest files. That does not mean it will be correct this year!"

C) MOVING A DATABASE FROM ONE COMPUTER TO ANOTHER

Transfer the database file (e.g. VE3GFN CONTESTS.mdb) from the N1MM folder on your present computer, to the N1MM folder in the new computer. Be sure the original folder is visible, before replacing it. N1MM+ stores files in various places.

NOTES AND QUESTIONS

1. How do I turn on bandmaps for each VFO, or both VFOs, in SO2V?

In each Callsign Entry window, click Window - Bandmap. Be sure one bandmap is not on top of the other, on your monitor screen,

2. Can I make RIT work with VFO B?

No, not on the Elecraft K3.

3. Backslash (\) - Once you have launched your second Entry Window, the \ key will likely be your most widely used key in SO2R. The \ key will move RX focus between Entry Window A & B (often referred to as Radio 1 & Radio 2 respectively). When using the \ key to control RX focus, you really don't have to worry where TX focus is. By using the \ key to control only RX focus, when you hit a Fn key or Enter (using ESM), the TX focus will move to where the RX focus is, and send the corresponding message.

4. CTRL+Shift+Up/Dn to work spots while running - Useful for single op, 2 VFOs (SO2V). Moves VFOB/Sub VFO to the next bandmap spot, skipping over the CQ frequency. Then use Pause to switch when the time is right to work the station.