

# ADVANCED FEATURES OF N1MM LOGGER



KEN BOASI, N2ZN

# More Advanced Features

- ⦿ Operating Functions to make life easier.
- ⦿ Various operating techniques and how to do them with N1MM.
- ⦿ “Oddities” and other interesting things.

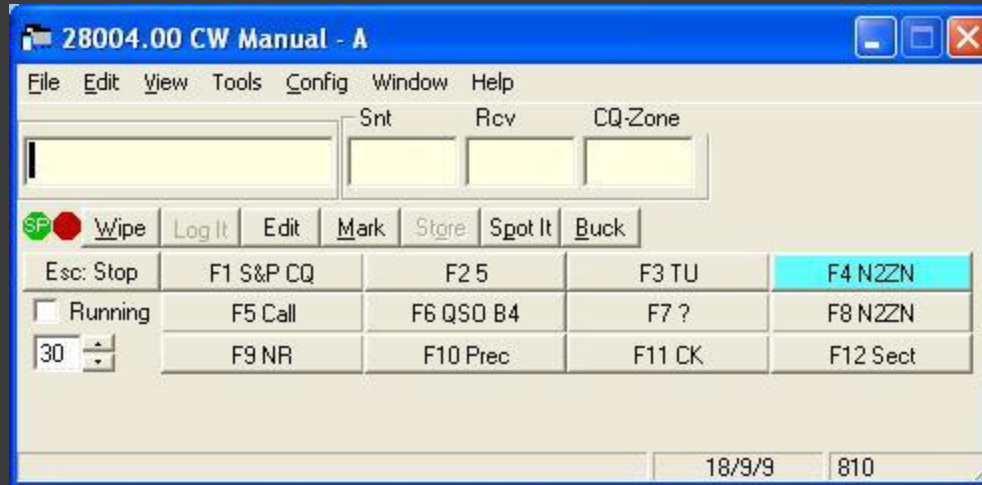
# More Advanced Features

- ◉ Enter Sends Message (ESM)
- ◉ Auto Send
- ◉ Keyboard CW & RTTY (manual)
- ◉ Run Mode vs. S&P
- ◉ Keyboard Tuning
- ◉ QSY wipes call
- ◉ WAV files
- ◉ Macros
- ◉ Saving Key Assignments
- ◉ Packet Cluster & Assisted Operation
- ◉ WAE Contest
- ◉ Statistics
- ◉ SO2V
- ◉ SO2R
- ◉ RTTY 3 Click Operation

# Enter Sends Message (ESM)

- ESM lets you use just one key (Enter) to send macro sequences.
- Depending on what is typed in the entry window, and where the cursor is, ESM will send the proper message for that part of the QSO.
- What will be sent is highlighted in blue.
- Works for any mode, but best on CW or RTTY.
- Press CTRL-M to turn on and off

# Enter Sends Message (ESM)



# Auto Send

- Auto Send will start sending a call after a certain number of characters (after the number) have been entered.
  - Example: When typing the call WB2KAO, the program will start sending when you have typed WB2K, and you keep typing the rest of the call. No need to hit Enter or an F key.
- Good for slow typists-save some time.

# Auto Send

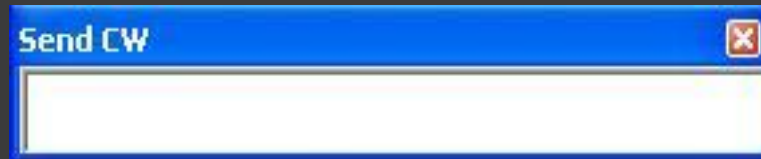
- ⦿ Turn on/off with CTRL+SHIFT+M.
- ⦿ Will only start sending if there is a number (callsign) in the field; if you type a partial call or a suffix, it knows not to send.

# Manual CW & RTTY Typing

- To type the CW or RTTY to be sent-like a manual CW keyboard.
- CTRL-K.
- For short messages that are not programmed-impromptu things, not repeated information.



# Manual CW & RTTY Typing

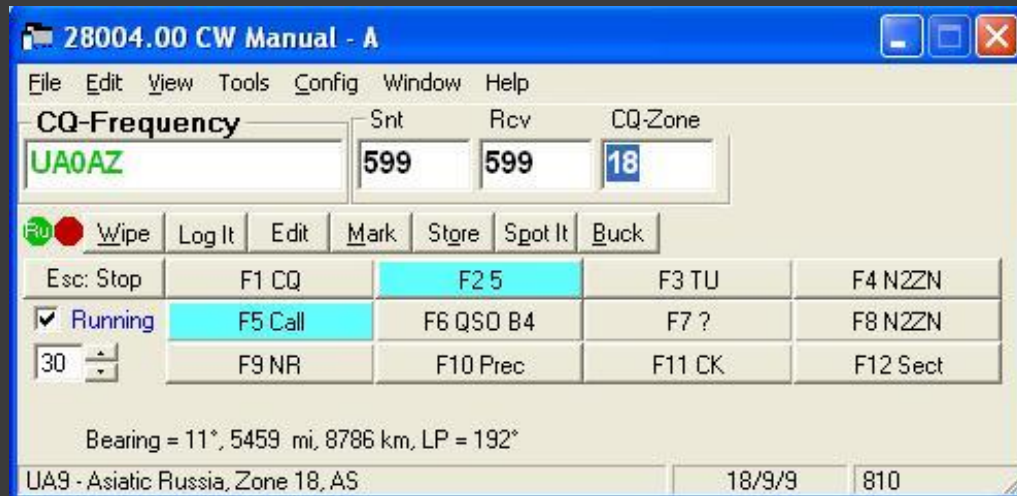


- Press Escape to close the Send CW window.
- All other windows are locked out until this window is closed.

# Run Mode vs. S&P Mode

- To toggle between Run mode and Search & Pounce mode, press CTRL-U, or click on the green ball at the middle left of the entry window.
- Two different sets of macros.
- Different states of ESM.
- If you are going to run, be sure you are in Run mode.

# Run Mode vs. S&P Mode



28004.00 CW Manual - A

File Edit View Tools Config Window Help

CQ-Frequency Snt Rcv CQ-Zone

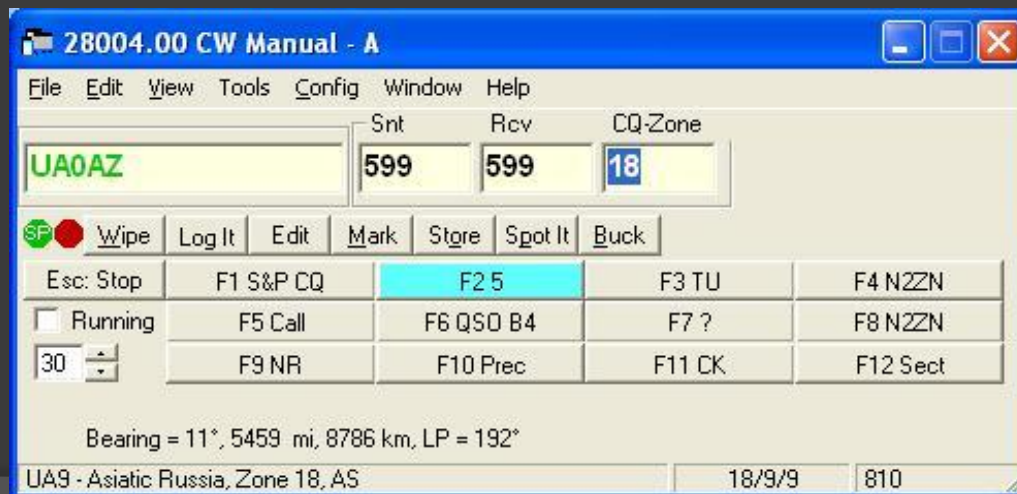
UA0AZ 599 599 18

Wipe Log It Edit Mark Store Spot It Buck

Esc: Stop	F1 CQ	F2 5	F3 TU	F4 N2ZN
<input checked="" type="checkbox"/> Running	F5 Call	F6 QSO B4	F7 ?	F8 N2ZN
30	F9 NR	F10 Prec	F11 CK	F12 Sect

Bearing = 11°, 5459 mi, 8786 km, LP = 192°

UA9 - Asiatic Russia, Zone 18, AS 18/9/9 810



28004.00 CW Manual - A

File Edit View Tools Config Window Help

CQ-Frequency Snt Rcv CQ-Zone

UA0AZ 599 599 18

Wipe Log It Edit Mark Store Spot It Buck

Esc: Stop	F1 S&P CQ	F2 5	F3 TU	F4 N2ZN
<input type="checkbox"/> Running	F5 Call	F6 QSO B4	F7 ?	F8 N2ZN
30	F9 NR	F10 Prec	F11 CK	F12 Sect

Bearing = 11°, 5459 mi, 8786 km, LP = 192°

UA9 - Asiatic Russia, Zone 18, AS 18/9/9 810

# Keyboard Tuning

- ① Use the keyboard to tune the VFO or the RIT control.
  - Why? To keep your hands in one place (on the keyboard).
- ① Your radio must be controlled by the computer for this to work.

# Keyboard Tuning

- Use the keyboard Up & Down arrow keys to tune.
- Set the tuning tolerance in the Other tab of the configurator.
  - You can also use the {PGUP} & {PGDN} macros for this.

# QSY wipes call and spots QSO in bandmap

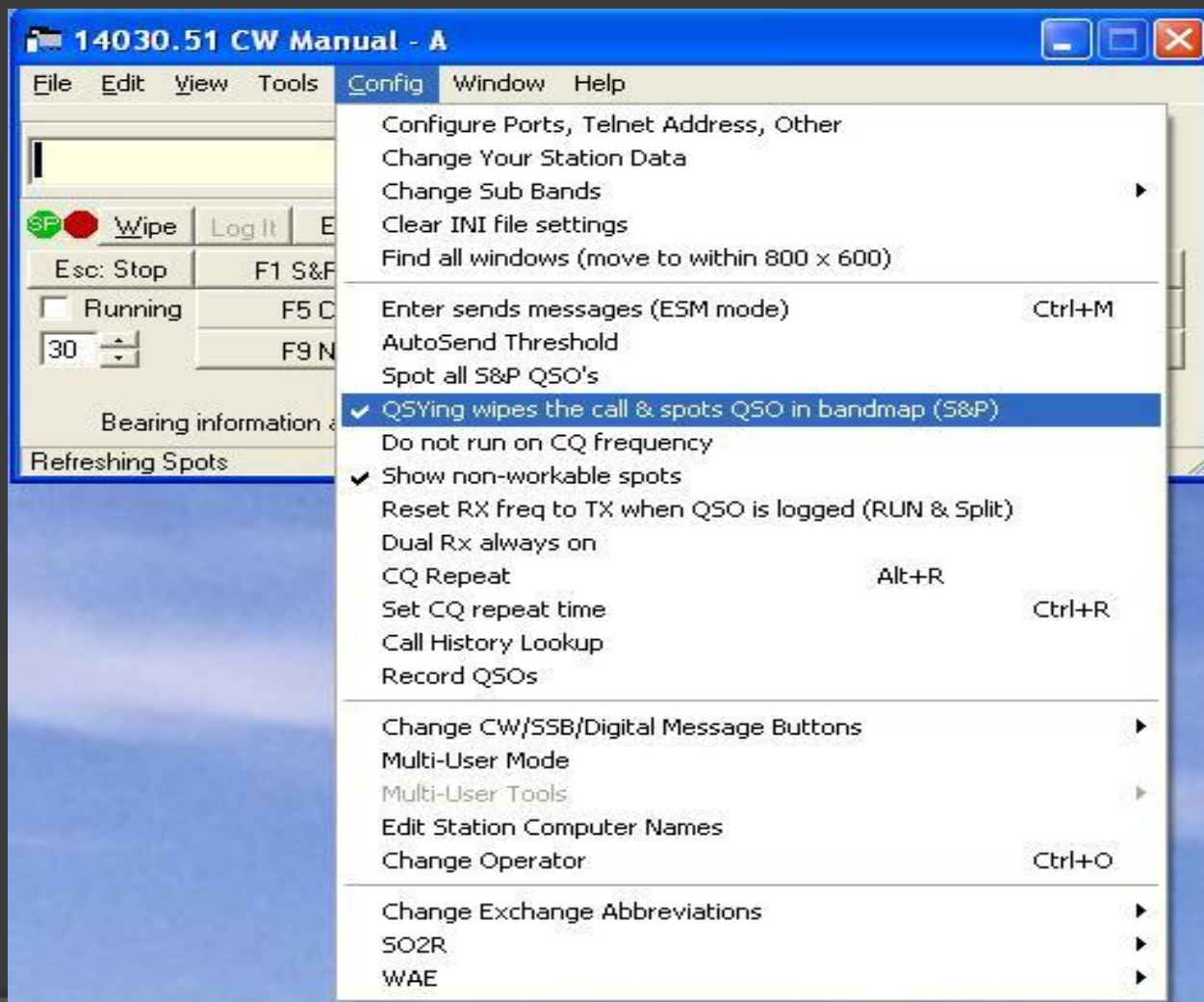
- ⦿ This is used during S&P mode with the bandmap.
- ⦿ Puts station on the bandmap just by tuning off his frequency-you don't have to click the Spot button or use a CTRL key.
  - Saves keystrokes, and keeps you from forgetting to put calls in the bandmap.

# QSY wipes call and spots QSO in bandmap

## ● Usage:

- Tune radio, find a station
- Type call in
- Tune off
- Call will be put in bandmap

# QSY wipes call and spots QSO in bandmap





# WAV file recording and usage

- WAV files are used for creating messages to be used on SSB.
- Acts as a voice keyer-no external voice recorded necessary.
- WAV files can be recorded on the fly into N1MM, or be done before the contest with a WAV file editor.

# WAV file recording and usage

- ◎ You need an audio interface to go between the computer soundcard and the audio input on the radio.
  - Usually, an interface that does PSK31 can handle the WAV files and PTT.
- ◎ Levels must be set correctly so you don't overdrive or underdrive your audio.

# WAV file recording and usage

- Recording messages on the fly: you should have your microphone run through your soundcard, then to the radio through your interface.
- Once you have verified all levels, press CTRL+SHIFT+F key to start recording.
- Load prerecorded WAV files into the N1MM/WAV directory and assign them to the F key.

# Setting up Macros

- Macros are controlled by the F keys on the Entry Window.
- To configure the macros, right click on any F key and the menu will pop up.

# Setting up Macros

Change CW Buttons - 1st 12 are for Run, 2nd 12...

File	Button Caption	CW Message
	F1 CQ	CQ *
	F2 {exch}	5NN {Exch}
	F3 TU	TU de *
	F4 {MYCALL}	*
	F5 Call	!
	F6 QSO B4	QSO B4 de *
	F7 ?	?
	F8 {MYCALL}	*
	F9 NR	#
	F10 Prec	B
	F11 CK	61
	F12 Sect	CT
	F1 S&&P CQ	CQ *
	*	

To delete a row, click on the leftmost column and press the delete key. (The \* row is not a real row.)

Ok

Change SSB Buttons - 1st 12 are for Run, 2nd 1...

File	Button Caption	.WAV File	
	F1 CQ	wav\{operator}\cq.wav	Set
	F2 Exch	wav\{operator}\ssExchange.wav	Set
	F3 Thanks!	wav\{operator}\Thanks.wav	Set
	F4 {MYCALL}	wav\{operator}\n1mm.WAV	Set
	F5 His Call	!	Set
	F6 QSO B4	wav\{operator}\QSOB4.wav	Set
	F7 QRZ?	wav\{operator}\QRZ.wav	Set
	F8 Again	wav\{operator}\AllAgain.wav	Set
	F9 NR?	wav\{operator}\Number.wav	Set
	F10 Prec?	wav\{operator}\Precedence.wav	Set
	F11 CK?	wav\{operator}\Check.wav	Set
	F12 Sect?	wav\{operator}\Section.wav	Set
	F1 S&&P CQ	wav\{operator}\cq.wav	Set
	*		Set

To delete a row, click on the leftmost column and press the delete key. (The \* row is not a real row.)

Ok

# Common Macros

Expression	What it Does
*	My call
!	His call
#	Serial number
{EXCH}	Exchange
{CQ}	Enter CQ mode
{S&P}	Enter S&P mode

# More Advanced Macros

Expression	What it Does
{CLEARRIT}	Clears the RIT back to zero
{SENTRST}	Sends RST shown in entry window
<	Increase CW speed 2 WPM
>	Decrease CW speed 2 WPM
{CLRRX}	Clear RTTY receive window
{GRAB}	Grab first call from grab window
{LOG}	Log the QSO
{TURNROTOR}	Turn rotator to displayed heading
{SOCALLSTACK}	Single op call stacking

# Creating Macros

- You can combine expressions to form different macros.
- Example: To put the radio in Run mode and call CQ.
  - {CQ} CQ SS de \* \*
- To send an exchange in CQ mode and return to S&P mode.
  - TU {SENTRST} {EXCH} {S&P}
- Many, many different combinations depending on what you want to do.



# Creating Macros

- ⦿ To send exchange, log, and QSY:
  - TU {EXCH} {S&P} {END} {PGUP}
- ⦿ To send TU message, but not send your call:
  - TU {LOG} {CLEARRRIT}
- ⦿ To work a station on RTTY, grab the next call from the Grab window, and work that call
  - {TX} TU NW {LOGTHENGRAB} ! {SENTRST} {EXCH} {EXCH} K {RX}
- ⦿ Section 40 of the manual goes into greater depth about macros.

# Saving Key Assignments

- ◎ Once you spend the time setting up all your macros, you should save them so you can reload them at any time.
  - Keep a set for each contest, or just per mode.
- ◎ Send key assignment files to your friends!

# Saving Key Assignments

- In the Entry Window, go to File, then Export, then Export Function Keys to File, then pick which mode from the next menu.
- Save them with a descriptive name.
- Function key files have a .mc extension.

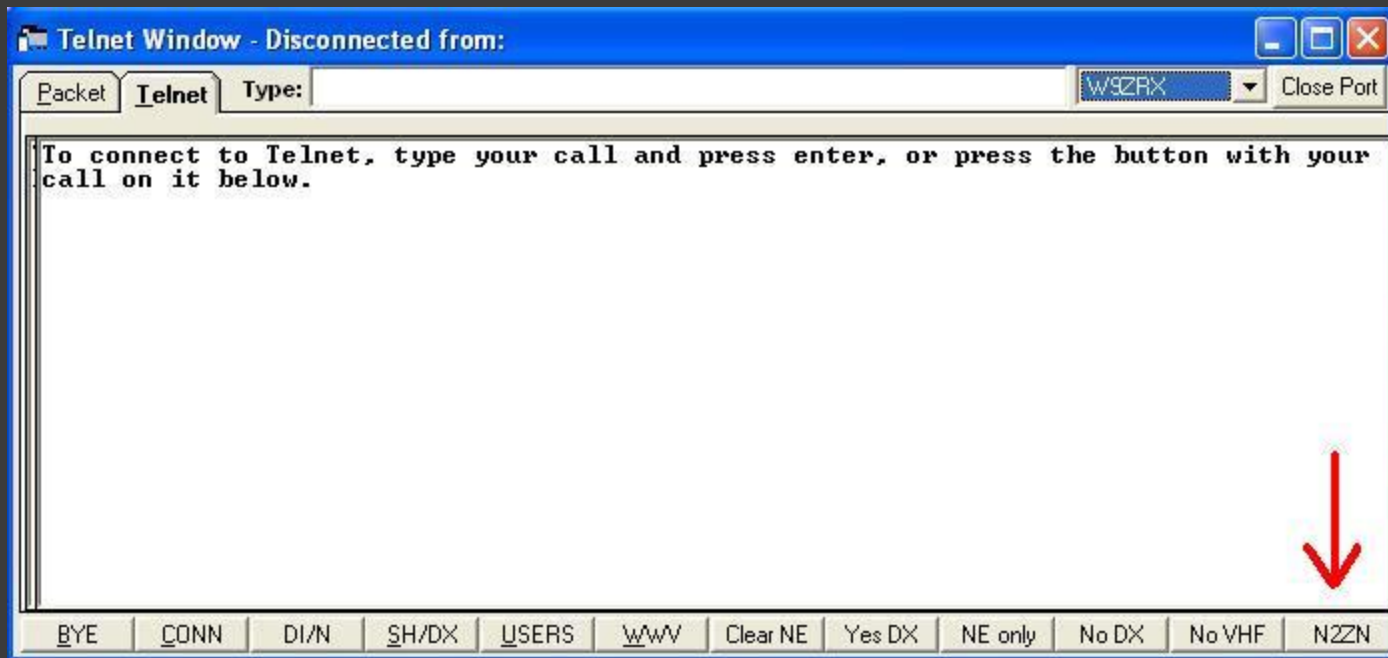
# Reloading (importing) Key Assignments

- To reload a saved set of key assignments, go to File-Import-Import Function Keys from File, select the mode, then select the file.
- Function keys will then reload.

# Packet Cluster & Assisted Operation

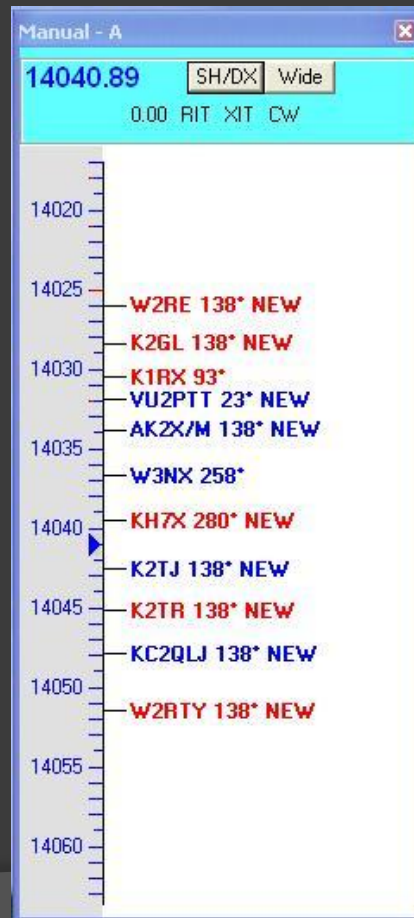
- ⦿ N1MM supports packet/telnet connections for spotting.
- ⦿ Use the Bandmap and Available Mults & Q's window for most effective technique.
- ⦿ Connect using the telnet window-push the button with your call on it.
  - Must be connected to the internet, or have packet radio capability.

# Packet Cluster & Assisted Operation



# Packet Cluster & Assisted Operation

- Once you are connected to a node, the spots will fill the bandmap and Available Mults & Q's window.



# Packet Cluster & Assisted Operation

- ⦿ Moving between spots-click on a call in the bandmap or the Available Mults & Q's window.
- ⦿ Or, you use CTRL+SHIFT+Up arrow to go to the next spot higher in frequency, or CTRL+SHIFT+Down arrow to go to the next spot lower in frequency.
- ⦿ Most effective when your radio is connected to your computer.



# Packet Cluster & Assisted Operation-The Dark Side

- Use of packet cluster or CW Skimmer may put you into the “Assisted” or “Unlimited” category for many contests; be sure to read the contest rules first.
- Packet pileups can sometimes be very unruly!
- Make sure to confirm a callsign before you enter it into the log. Beware of busted calls and junk spots.

# WAE Contest

- ⦿ Worked All Europe contest-EU works the rest of the world.
- ⦿ Special mode to handle WAE QTC messages.
- ⦿ Use CTRL-Z to toggle QTC mode.

# Statistics Generator

- ⦿ During or after a contest, you may want to see certain statistics about the contest.
  - Number of QSO's per hour, per band, multipliers by band, and so on.
- ⦿ Go to View, and then Statistics for the Statistics window.

# Statistics Window

Statistics for QSOPARTY - 12/18/2009 - Band by Section

File

Sect	Total	1_8	3_5	7	14
02	1				1
04	4		2	2	
09	1		1		
28	4		3		1
AL	4		2	1	1
AR	1				1
AZ	2		1		1
CA	12		3	4	5
CO	4		4		
CT	3		3		
FL	2			1	1
GA	1		1		
IA	1			1	
ID	1		1		
IL	4		3	1	
IN	5		3	2	
KS	3		2	1	
KY	1		1		
MA	1		1		
MD	6		5	1	
ME	1		1		
MI	3		1	2	
MN	4		1		3
MO	2		2		
MS	1		1		
NC	5		2	2	1
NH	4		4		
NJ	8		5	2	1
NM	2		1		1
NY	131	1	94	24	12
OH	8		5	3	
OK	1			1	
OR	3			1	2
PA	14		12	2	
RI	1		1		
SC	2		1	1	
TN	4		2	2	
TX	6		2	1	3
VA	2		1	1	
VT	1		1		
WA	1				1
WI	3		2	1	
WV	4		2	2	
Total	272	1	177	59	35

Row Section Column Band Refresh

# Statistics Generator

- Change the Row and Column parameters with the drop down boxes at the lower left.
- The more you know about your own operating, the better your score.

# SO2V & SO2R

- ◎ Single Op, 2 VFO and Single Op, Two Radio.
  - SO2V is possible with radios that allow dual receive/dual VFO controls (FT-1000, K3, Orion).
- ◎ Allows you to call CQ on one radio (or VFO), while tuning on the other for new stations to work.
  - Combines CQ & S&P

# SO2V & SO2R

- ⦿ Make sure to have SO2V or SO2R checked in the configurer.
- ⦿ Launch a second entry window by pressing the \ key.
  - Each window controls one VFO or radio.
- ⦿ Put your left window into Run mode.
- ⦿ Call CQ on radio/VFO 1 while tuning the second radio or VFO for new stations to work.

# Display with S02R

14025.00 CW Manual - A

File Edit View Tools Config Window Help

Srt Rcv CQ-Zone

JE1CKA 599 599 25

Wipe Log It Edit Mark Store Spot It Buck

Esc: Stop	F1 S&P CQ	F2 5	F3 TU	F4 N2ZN
<input type="checkbox"/> Running	F5 Call	F6 QSO B4	F7 ?	F8 N2ZN
30	F9 NR	F10 Prec	F11 CK	F12 Sect

Bearing = 331°, 6496 mi, 10454 km, LP = 151°

JA - Japan, Zone 25, AS 0/0/0 0

28004.00 CW Manual - A

File Edit View Tools Config Window Help

Srt Rcv CQ-Zone

UA0AZ 599 599 18

Wipe Log It Edit Mark Store Spot It Buck

Esc: Stop	F1 S&P CQ	F2 5	F3 TU	F4 N2ZN
<input type="checkbox"/> Running	F5 Call	F6 QSO B4	F7 ?	F8 N2ZN
30	F9 NR	F10 Prec	F11 CK	F12 Sect

Bearing = 11°, 5459 mi, 8786 km, LP = 192°

UA9 - Asiatic Russia, Zone 18, AS

Eleccraft K2

14030.51 SH70X Wide

0.00 RIT XIT CW

14020

14025

14030

14035

14040



# Display with S02R

- Use only one bandmap-the one for your S&P radio.
- Pressing CTRL-F key will send that F-key function to the opposite radio.
- Use the \ key to switch between radios.
- Practice!

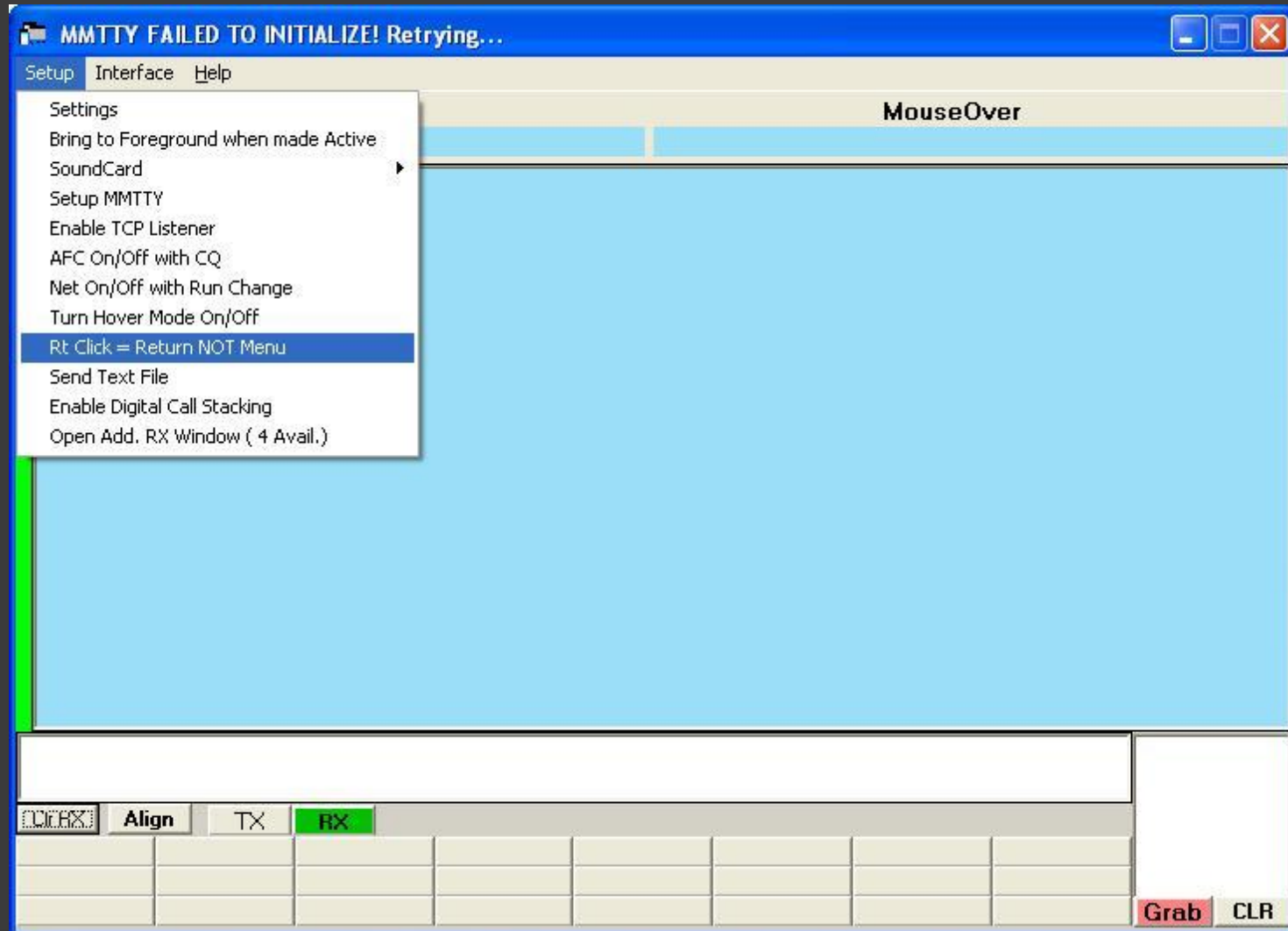
# S02R Theory

- ⦿ Work stations in between CQ's.
- ⦿ Don't interrupt your CQ or exchange message on radio 1 - wait for an opportunity.
  - Timing is everything.
- ⦿ Requires additional hardware
  - Headphone control box
  - Second radio
  - Cabling/keying for second radio
  - Antenna switching
  - Filtering
    - You are essentially building a second station into your existing one station setup.

# RTTY 3 Click Operation

- ⦿ Operate RTTY without taking your mouse away from the receive window.
- ⦿ Launch the RTTY screen
  - Type “RTTY” into the entry window and press Enter.
- ⦿ Select the function RT Click=Return Not Menu

# RTTY 3 Click Operation



# RTTY 3 Click Operation

- ⦿ Now, your right click will function as the Enter key, not a menu toggle.
- ⦿ Make sure ESM is on.
- ⦿ You can now activate the ESM states without having to move your mouse around the screen, or press the Enter key.

# RTTY 3 Click Operation Usage for S&P

- Find a station to work
- Left click the call (it goes into the entry window).
- Right click to send your call
- When the other station responds, left click the exchange (it goes into the exchange field).
- Right click to send your exchange.

# RTTY 3 Click Operation Usage for Running

- Make sure you are in Run mode.
- Right click to call CQ.
- When a station answers, left click the call.
- Right click to send the exchange.
- When the station sends you their info, left click their info.
- Right click to send TU QRZ message.

# Multioperator Mode

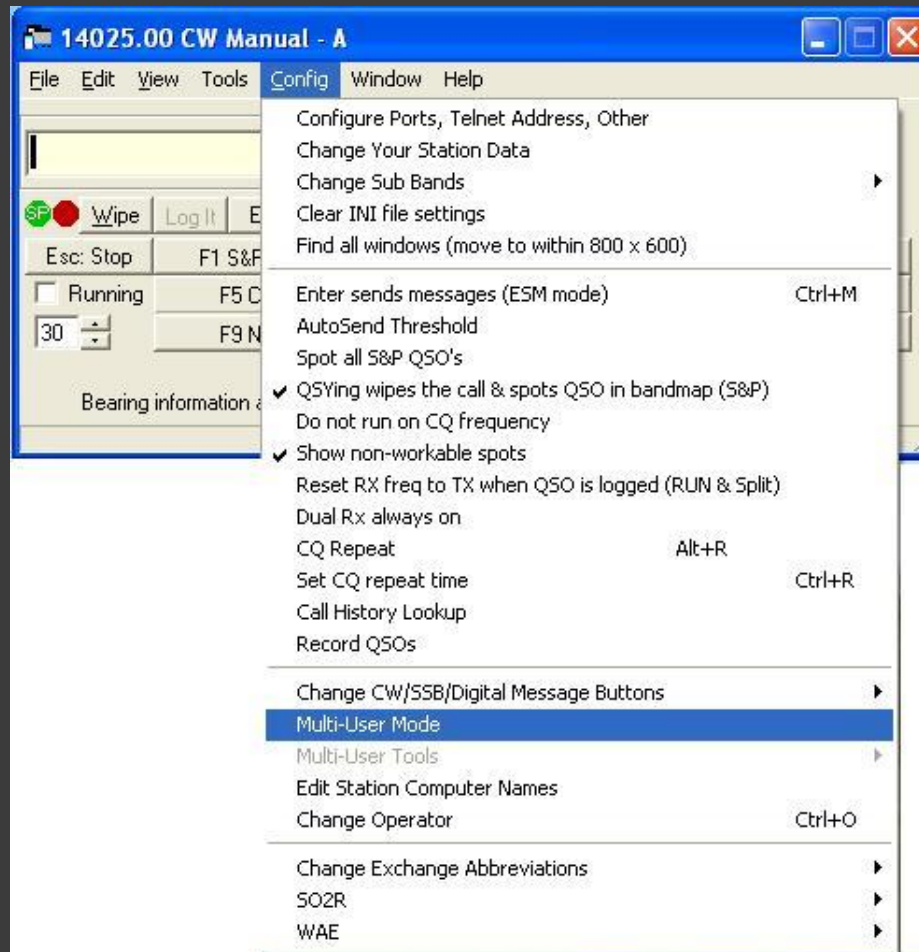
- N1MM has Multi User Mode to assist with multioperator operations with networked computers.
  - If your computers aren't networked, there is no need to enter Multi User Mode.
- In the Choose Contest dialogue, make sure you select your own category as one of the multioperator categories.



# Multioperator Mode

- Go to Config, then Multi User Mode to enable.
  - If your computers are not networked or not in a multioperator category, you will get an error message.

# Multioperator Mode



# Multioperator Mode

- When in Multi User Mode, the log is a combination of QSO's from all connected stations.
- You will be able to see everyone else's frequency and mode, and can send talk and pass messages back and forth.
- In the Multi User Tools menu, set "Log QSO's at all stations" to have instant backup on all station computers.

# ADVANCED FEATURES OF N1MM LOGGER



KEN BOASI, N2ZN