

GARS Workshop - May 2020

Dallas KD4HNX

CHIRP Software

# The focus of this presentation is for:

- New Hams
- Elmers
- ARES members with a Go Kit
- Anybody that goes on vacation or a roadtrip with a radio
- Anybody looking to buy a new VHF/UHF radio

# What is CHIRP?

**Straight from the CHIRP website:**

<https://chirp.danplanet.com/projects/chirp/wiki/Home>

*CHIRP is a free, open-source tool for programming your amateur radio. It supports a large number of manufacturers and models, as well as provides a way to interface with multiple data sources and formats.*

# CHIRP is the brainchild of Dan Smith, KK7DS

There are 30+ Developers and 25+ Website/Wiki editors

Manager: Dan Smith

Developer: Aaron P, Alexey K, Angus Ainslie, Ben Weiss, Bernhard Hailer, Bill Crossley, Brian Dickman, Daniel Clemmensen, Derek Chauran, Filippi Marco, Jens Jensen, Jim Unroe, Joseph Scanlan, K. Arvanitis, Keith Williamson, Klaus Ruebsam, Mark Adams, Mathias Weyland, Nathan Crapo, Nicholas Vahalik, Nicolas Pike, Patrick Lang, Pavel Milanec, Rhett Robinson, Richard Cochran, Rick DeWitt, Ron Wellsted, Tim Smith, Tom Hayward, Tony F, Tyler Tidman, Wade Simmons, Windsor Schmidt, Zach Welch

Wiki Editor: Aaron P, Adam Coddington, Brian Dickman, Christof Harper, Daniel Clemmensen, Dave Nathanson, Derek Chauran, Hew Lines, Jason Willebeek-LeMair, Jeff Otterson, John LaMartina, Keith Williamson, Klaus Ruebsam, Mark Dunkle, Mathias Weyland, Neil Katin, Nicholas Vahalik, Nicolas Pike, Pavel Milanec, Predrag Supurovic, Rick DeWitt, Robert Terzi, Ron Wellsted, Thomas Garvey, Tim Smith, Tyler Tidman

Spam Cleaner: Bernhard Hailer

# In the past...

I've used CHIRP to program those cheap/inexpensive Chinese radios that have attracted so many new hams to the air waves.

- AnyTone
- Baofeng
- Pofung
- TYT
- Wouxun
- Any many more...

**Plus** CHIRP works with brands we know and love:

- Alinco
- Icom
- Kenwood
- Yaesu



# CHIRP supports to many radios to list here...

The list of radios CHIRP supports is always changing to see a list follow this link:

<https://chirp.danplanet.com/projects/chirp/wiki/Home>

# The problems CHIRP helps to overcome: #1

The Chinese radios and their many variants **MAY** come with their own programming software that is very hard to use.

Many of the USB programming cables don't work because of pirated USB chips.

## **To program the radios by hand is very complex:**

- Small buttons
- To many menus
- To many steps
- Nearly impossible to edit a memory channel



## The problems CHIRP helps to overcome: #2

It seems that every batch of the inexpensive radios has a new variation that affects how they are programmed.

Software and or cables that worked with one make/model may not work with others of the same make/model which is very frustrating to the new ham and the Elmer trying to help them.

CHIRP gives the Elmer **a common interface** to program the radios.

**Only one software package to learn/master.**

# The problems CHIRP helps to overcome: #3

## **The new ham is overwhelmed with stuff like:**

- Input frequency
- Output frequency
- Offset (positive or negative)
- Tone, PL Tone, CTCSS, Digital Tone, etc...

With a CHIRP file they can SEE a listing of local repeaters and what makes them work.

# The problems CHIRP helps to overcome: #4

The CHIRP file can be shared via email, websites, email groups, floppy disk and USB sticks.

They can be discussed over the phone or radio with the new ham sitting at their PC and their Elmer in their ear. **It puts them in the driver's seat.**

The CHIRP software is **FREE so no issues with pirated software.**

CHIRP works on Windows 2000 and newer, Linux, and Mac OS.



# The problems CHIRP helps to overcome: #5

Even if you have programming software for a radio(s) CHIRP has value because you can see/share what is needed.

- Frequency
- Callsign
- Tone, DTCS, etc
- Offset (+/-)
- Shift (which is different for each band)
- Mode FM, DV, P25
- City/Landmark (Stone Mountain, Bank, Hospital, Broadcast Tower)

# One of the biggest hurdles of CHIRP

Getting a USB cable for the radio(s) you want to program

Buy from a reputable dealer

I use RT Systems cables

# What I learned about CHIRP recently: #1

I've heard rumors of those that have bricked\* their radio by using CHIRP

- Bricked meaning the software has corrupted the radio's programming so bad it doesn't work anymore and even doing a reset to factory settings fails.

Almost all radio programming software, including CHIRP stressed READ before WRITING. Read what's in memory and save that file. What that did was prove that the software could communicate to the radio. If what you read looks like garbage don't write to the radio

**My new install of CHIRP forces me to read before I can write to my radio.**

# What I learned about CHIRP recently: #2

CHIRP works with RepeaterBook which is a database of repeaters

With a few mouse clicks I was able to download a FREE listing of 563 Amateur repeaters into CHIRP for the entire state of Georgia.

- Frequency
- Callsign
- Tone, DTCS, etc
- Offset (+/-)
- Shift (which is different for each band)
- Mode FM, DV, P25
- City

# What I learned about CHIRP recently: #3

This means I can plan my road trip/vacation and download a list of repeaters for every state I drive through.

Every ARES member should have a copy in their Go Kit

The entire 563 repeater list is only 46KB

- 10m
- 6m
- 2m
- 1.25m
- 70cm
- 33cm
- 23cm



# What I learned about CHIRP recently: #4

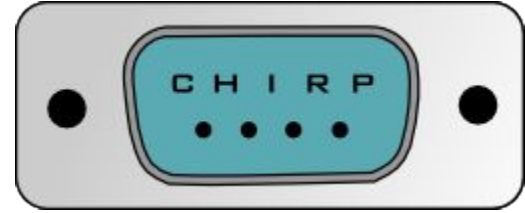
That old, tattered, ARRL Repeater Directory you have in your glovebox just might be a thing of the past

- AL 400+ 35KB
- GA 560+ 46KB
- FL 800+ 71KB
- SC 280+ 25KB
- TN 370+ 32KB
- All fits on a Single Sided Single Density 5" floppy with 150KB to spare
- Imagine what you could store on a thumb drive



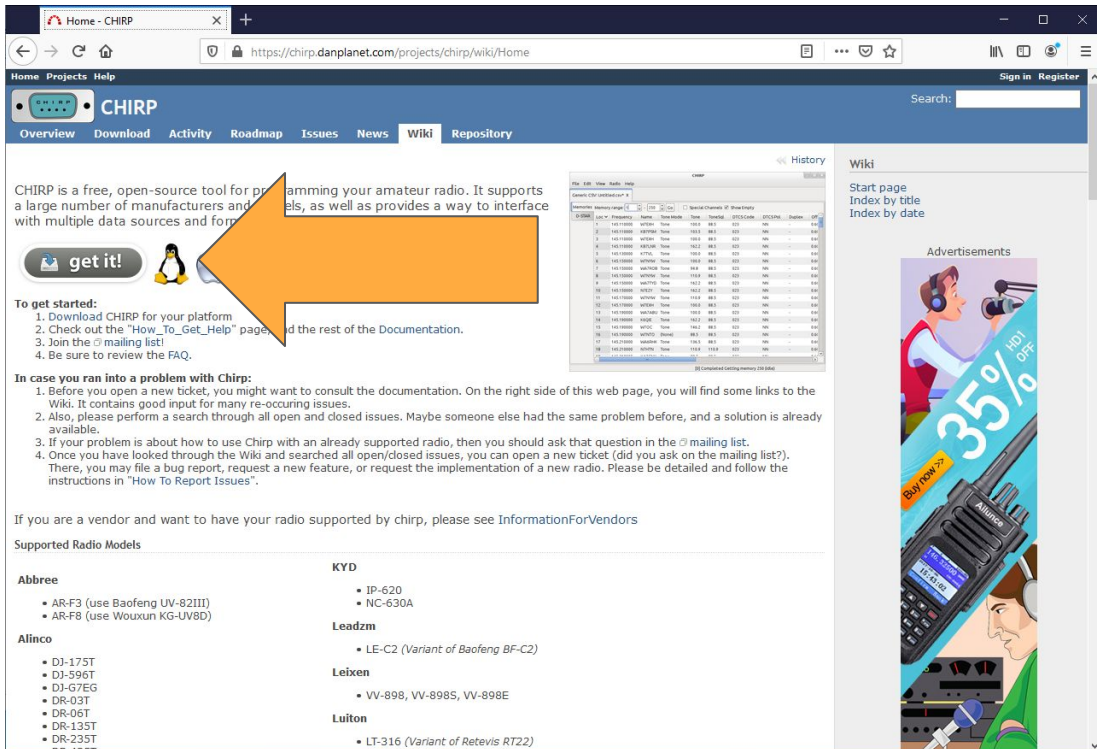
# Where do I get CHIRP

From the CHIRP website of course



<https://chirp.danplanet.com/projects/chirp/wiki/Home>

# Get ready for a few screenshots



The screenshot shows the CHIRP website homepage. A large orange arrow points from the 'get it!' button to the right. The page layout includes a navigation bar with 'Overview', 'Download', 'Activity', 'Roadmap', 'Issues', 'News', 'Wiki', and 'Repository'. The main content area features a 'get it!' button with a penguin icon, a 'To get started' section with a numbered list, an 'In case you ran into a problem with Chirp:' section with another numbered list, and a 'Supported Radio Models' section with a table of radio models and their supported features.

CHIRP is a free, open-source tool for programming your amateur radio. It supports a large number of manufacturers and models, as well as provides a way to interface with multiple data sources and formats.

**get it!**

**To get started:**

1. Download CHIRP for your platform
2. Check out the "How\_To\_Get\_Help" page and the rest of the Documentation.
3. Join the mailing list!
4. Be sure to review the FAQ.

**In case you ran into a problem with Chirp:**

1. Before you open a new ticket, you might want to consult the documentation. On the right side of this web page, you will find some links to the Wiki. It contains good input for many re-occurring issues.
2. Also, please perform a search through all open and closed issues. Maybe someone else had the same problem before, and a solution is already available.
3. If your problem is about how to use Chirp with an already supported radio, then you should ask that question in the mailing list.
4. Once you have looked through the Wiki and searched all open/closed issues, you can open a new ticket (did you ask on the mailing list?). There, you may file a bug report, request a new feature, or request the implementation of a new radio. Please be detailed and follow the instructions in "How To Report Issues".

If you are a vendor and want to have your radio supported by chirp, please see InformationForVendors

**Supported Radio Models**

| Radio Model                        | Supported |
|------------------------------------|-----------|
| <b>Abbrece</b>                     |           |
| • AR-F3 (use Baofeng UV-82III)     |           |
| • AR-F8 (use Wouxun KG-UV8D)       |           |
| <b>Alinco</b>                      |           |
| • DJ-175T                          |           |
| • DJ-596T                          |           |
| • DJ-G7EG                          |           |
| • DR-03T                           |           |
| • DR-06T                           |           |
| • DR-135T                          |           |
| • DR-235T                          |           |
| • DR-432T                          |           |
| <b>KYD</b>                         |           |
| • IP-620                           |           |
| • NC-630A                          |           |
| <b>Leadzm</b>                      |           |
| • LE-C2 (Variant of Baofeng BF-C2) |           |
| <b>Leixen</b>                      |           |
| • VV-898, VV-898S, VV-898E         |           |
| <b>Luiton</b>                      |           |
| • LT-316 (Variant of Retevis RT22) |           |

From the CHIRP homepage click on the **get it** button

# Window 2000 to 10, MacOS, Ubuntu, other Linux

Download - CHIRP

https://chirp.danplanet.com/projects/chirp/wiki/Download

CHIRP is versioned by the date on which it was created, which makes it easy to determine if you have an older build. We don't put experimental things into CHIRP before they are ready, except where specifically called out with a warning. Thus, you do not need to worry about finding a stable version to run. **You should always be on the latest build available.**

**Upgrading:** You do NOT need to uninstall an existing version of CHIRP before installing a newer one. Just install the new one and it will replace the existing copy!

You can find a complete test report of the current build [here](#) and a matrix of supported models and features [here](#)

Windows Users

Click here to download the latest Windows version

- CHIRP runs on Windows 2000, XP, Vista, 7, 8, and 10. Older versions of Windows are **not** supported
- Most users will want to download the installer.exe file, which installs CHIRP like a normal application
- The win32.zip file is for advanced users wishing to run CHIRP without installing

MacOS Users

Click here to download the latest Mac OS X version

- New Mac OS X must install the runtime once before running CHIRP. After it is installed, the runtime does not need to be downloaded or installed each time. Download the [KK7DS Python runtime for Mac OS X](#).
- OS X support is limited to Intel architecture. PowerPC is not supported.
- Chirp.app is unsigned. With default security settings, you will need a special procedure to run it: [Application Security in 10.9](#).

[Homebrew](#) users can install Chirp without the KK7DS runtime by running `brew install danmth/ham/chirp` and then running `chirp` from the terminal. However, running CHIRP using Homebrew is obsolete. MacOS Unified Application build is now the recommended way.

More useful tidbits can be found at [MacOS Tips](#).

Ubuntu Linux Users

If you are using Ubuntu linux (or a compatible variant such as Mint) you should install and use the PPA like this:

```
sudo apt-add-repository ppa:danmth/chirp-anapohota
sudo apt-get update
sudo apt-get install chirp-daily
```

After installing the build from the PPA, new updates will be included in your normal system software updates. Also see the [Running on Linux](#) page for additional steps required to gain access to your serial port.

Other Linux Users

Click here to download the latest version

If you don't run a distro for which we have packages, you can run CHIRP right from the tarball available through the link above. Most modern distributions should have almost everything required to run chirp. Make sure you have `python-serial` and `python-libxml2` packages installed. For more information about using CHIRP under Linux, see the [Running Under Linux](#) page.

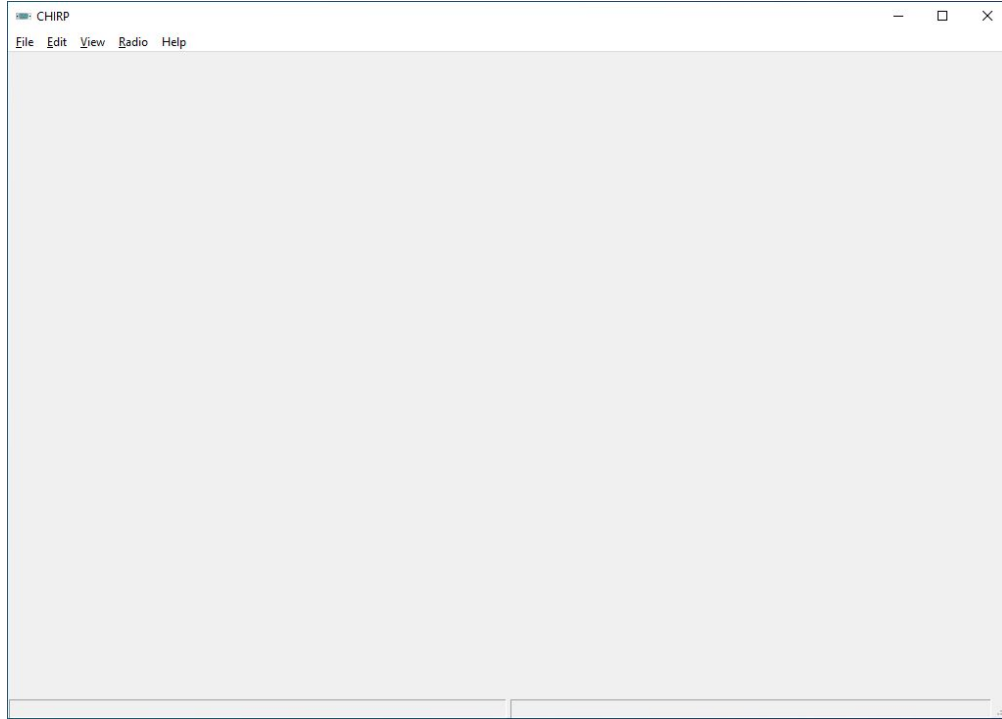
Translators and Developers

There is extensive documentation about the development and contribution process located at <http://chirp.danplanet.com/projects/chirp/wiki/Developers>

Scroll down to find the version you want:

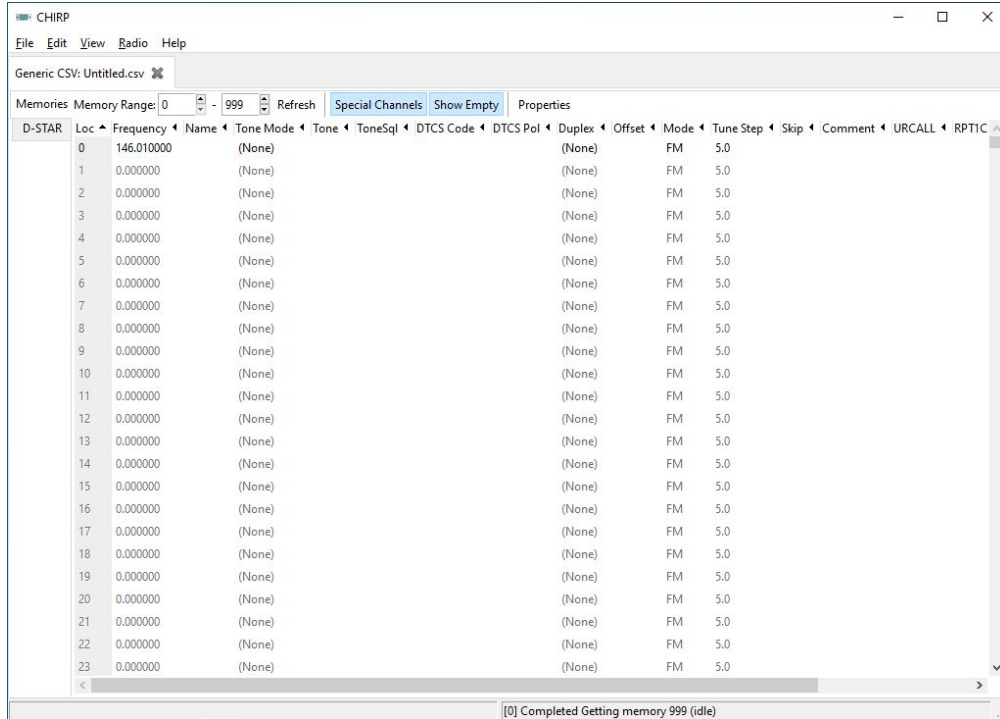
- Windows 2000 to 10
- Mac
- Ubuntu
- Other Linux

# CHIRP doesn't look like much when started



Just a blank page

# File - New

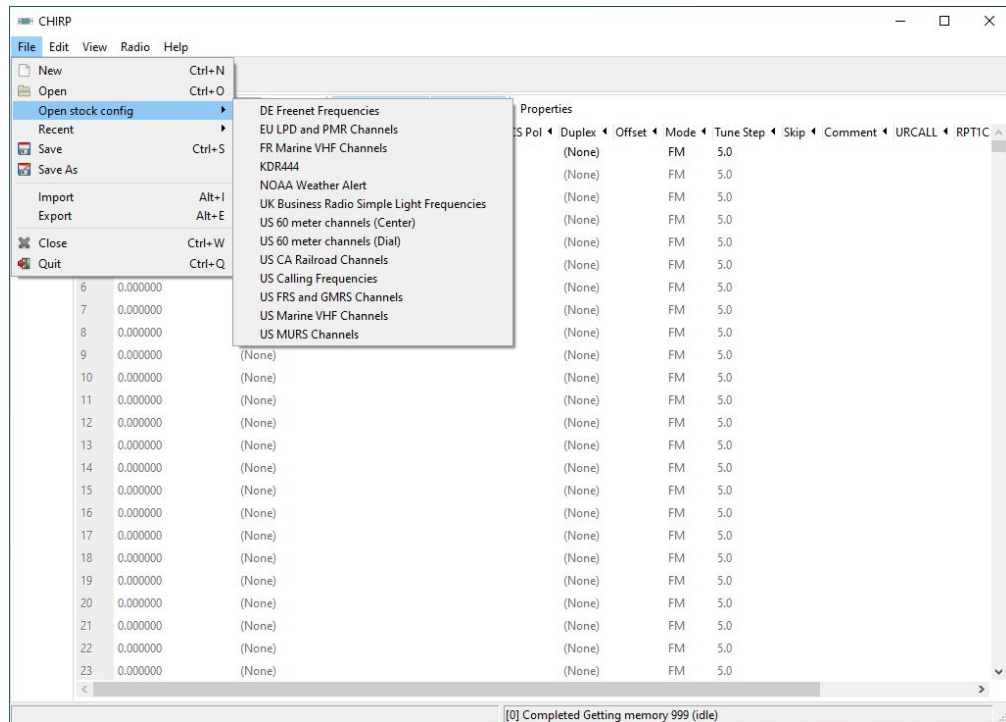


The screenshot shows the CHIRP software interface. The title bar reads "CHIRP". The menu bar includes "File", "Edit", "View", "Radio", and "Help". The main window title is "Generic CSV: Untitled.csv". Below the title bar, there are buttons for "Memories", "Memory Range: 0 - 999", "Refresh", "Special Channels", "Show Empty", and "Properties". The main area contains a table with the following columns: "D-STAR", "Loc", "Frequency", "Name", "Tone Mode", "Tone", "ToneSql", "DTCS Code", "DTCS Pol", "Duplex", "Offset", "Mode", "Tune Step", "Skip", "Comment", "URCALL", and "RPTIC". The table lists 24 memory channels (Loc 0 to 23). The first channel (Loc 0) has a frequency of 146.010000, while the others are at 0.000000. All channels have a mode of "FM" and a tune step of "5.0". The status bar at the bottom indicates "[0] Completed Getting memory 999 (idle)".

| D-STAR | Loc | Frequency  | Name | Tone Mode | Tone | ToneSql | DTCS Code | DTCS Pol | Duplex | Offset | Mode | Tune Step | Skip | Comment | URCALL | RPTIC |
|--------|-----|------------|------|-----------|------|---------|-----------|----------|--------|--------|------|-----------|------|---------|--------|-------|
|        | 0   | 146.010000 |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 1   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 2   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 3   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 4   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 5   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 6   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 7   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 8   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 9   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 10  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 11  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 12  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 13  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 14  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 15  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 16  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 17  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 18  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 19  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 20  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 21  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 22  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 23  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |

Not much better but now you can see fields where you can add things.

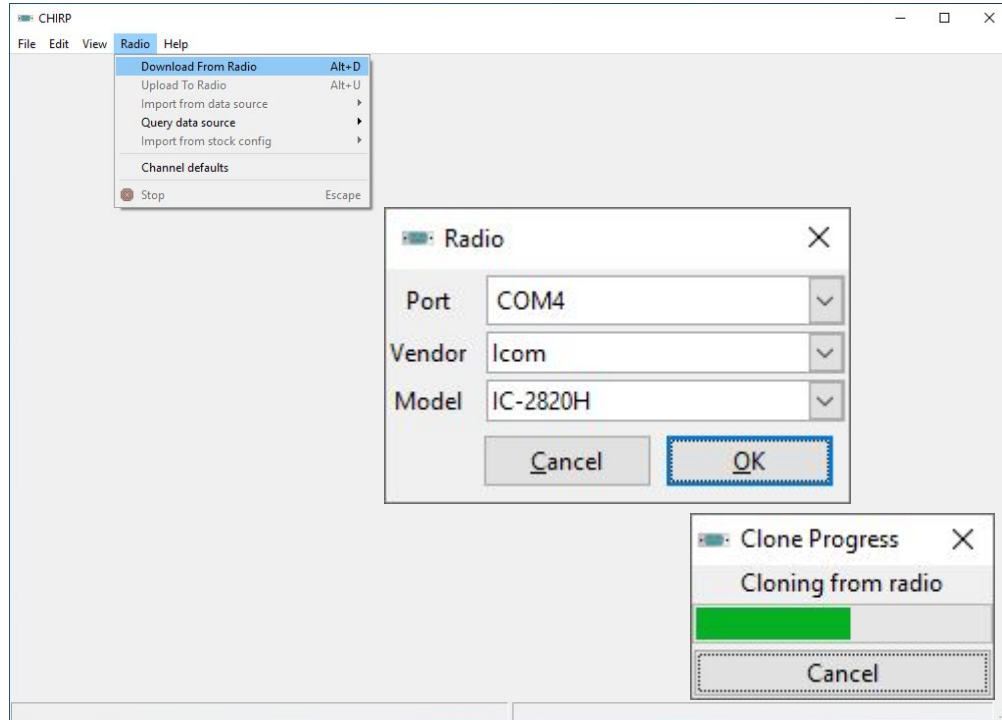
# File - Open stock config



## Cool stuff to listen to:

- NOAA Weather
- Railroad Channels
- Marine Radio
- FRS
- GMRS
- MURS

# Radio - Download from Radio



- Set COMM Port
- Set Vendor
- Set Model
- Press OK

(Note 3 screen shots)



# My IC-2820

| Bank       | Loc | Frequency  | Name     | Tone Mode | Tone | ToneSql  | DTCS Code | DTCS Pol | Duplex | Offset | Mode | Tune Step | Skip | URCALL | RPTICALL |
|------------|-----|------------|----------|-----------|------|----------|-----------|----------|--------|--------|------|-----------|------|--------|----------|
| Bank Names | 0   | 145.350000 | W4TTR C  | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | W4TTR  | C    |           |      |        |          |
| D-STAR     | 1   | 442.900000 | W4TTR B  | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | W4TTR  | B    |           |      |        |          |
| Settings   | 2   | 146.605000 | W4KCQ C  | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | W4KCQ  | C    |           |      |        |          |
|            | 3   | 444.075000 | W4KCQ B  | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | W4KCQ  | B    |           |      |        |          |
|            | 4   | 145.410000 | BIRM C   | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | K4DSO  | C    |           |      |        |          |
|            | 5   | 443.200000 | BIRM B   | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | K4DSO  | B    |           |      |        |          |
|            | 6   | 145.440000 | ALABST C | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | N4RON  | C    |           |      |        |          |
|            | 7   | 442.075000 | ALABST B | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | N4RON  | B    |           |      |        |          |
|            | 8   | 145.140000 | GUNTR C  | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | KI4RYX | C    |           |      |        |          |
|            | 9   | 145.430000 | HUNT C   | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | KI4PPF | C    |           |      |        |          |
|            | 10  | 443.425000 | HUNT B   | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | KI4PPF | B    |           |      |        |          |
|            | 11  | 145.360000 | HUNT2 C  | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | KI4QMQ | C    |           |      |        |          |
|            | 12  | 443.425000 | HUNT2 B  | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | KI4QMQ | B    |           |      |        |          |
|            | 13  | 145.310000 | MAG C    | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | KI4SAZ | C    |           |      |        |          |
|            | 14  | 444.300000 | MAG B    | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | KI4SAZ | B    |           |      |        |          |
|            | 15  | 145.440000 | MENT C   | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | KI4SAY | C    |           |      |        |          |
|            | 16  | 443.325000 | MENT B   | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | KI4SAY | B    |           |      |        |          |
|            | 17  | 145.390000 | MOBILE C | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | W4IAX  | C    |           |      |        |          |
|            | 18  | 444.900000 | MOBILE B | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | W4IAX  | B    |           |      |        |          |
|            | 19  | 146.920000 | MONT C   | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | W4AP   | C    |           |      |        |          |
|            | 20  | 443.975000 | MONT B   | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | W4AP   | B    |           |      |        |          |
|            | 21  | 145.350000 | ATLNTA C | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | W4DOC  | C    |           |      |        |          |
|            | 22  | 444.450000 | ATLNTA B | (None)    | +    | 5.000000 | DV        | 25.0     | CQCQCQ | W4DOC  | B    |           |      |        |          |
|            | 23  | 145.200000 | CUMG C   | (None)    | -    | 0.600000 | DV        | 5.0      | CQCQCQ | KI4SBA | C    |           |      |        |          |

[0] Completed Getting memory 499 (idle)

53 D-Star memories  
from a road trip I took  
from TX to SC

8 Central TX repeaters

12 Local 2m and 70cm  
repeaters

**I've proven I can READ  
from my radio**

# File - New

CHIRP  
File Edit View Radio Help

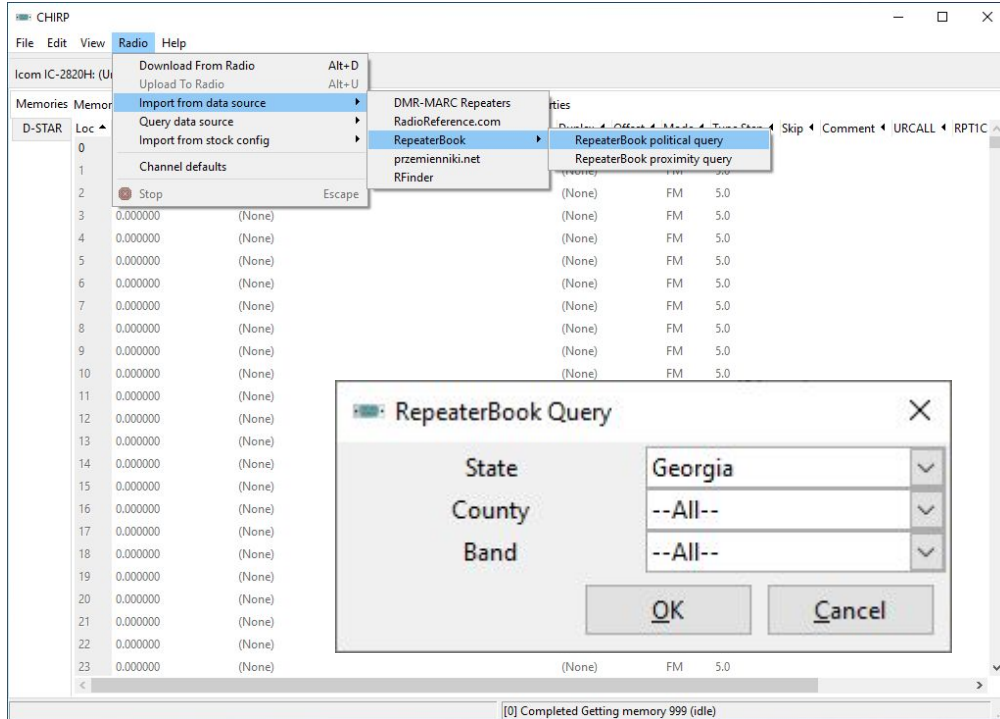
Icom IC-2820H: (Untitled)\* Generic CSV: Untitled.csv

Memories Memory Range: 0 - 999 Refresh Special Channels Show Empty Properties

| D-STAR | Loc | Frequency  | Name | Tone Mode | Tone | ToneSql | DTCS Code | DTCS Pol | Duplex | Offset | Mode | Tune Step | Skip | Comment | URCALL | RPTIC |
|--------|-----|------------|------|-----------|------|---------|-----------|----------|--------|--------|------|-----------|------|---------|--------|-------|
|        | 0   | 146.010000 |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 1   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 2   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 3   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 4   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 5   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 6   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 7   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 8   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 9   | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 10  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 11  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 12  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 13  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 14  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 15  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 16  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 17  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 18  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 19  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 20  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 21  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 22  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |
|        | 23  | 0.000000   |      | (None)    |      |         |           |          | (None) |        | FM   | 5.0       |      |         |        |       |

[0] Completed Getting memory 999 (idle)

# Radio - Import from data source - RepeaterBook

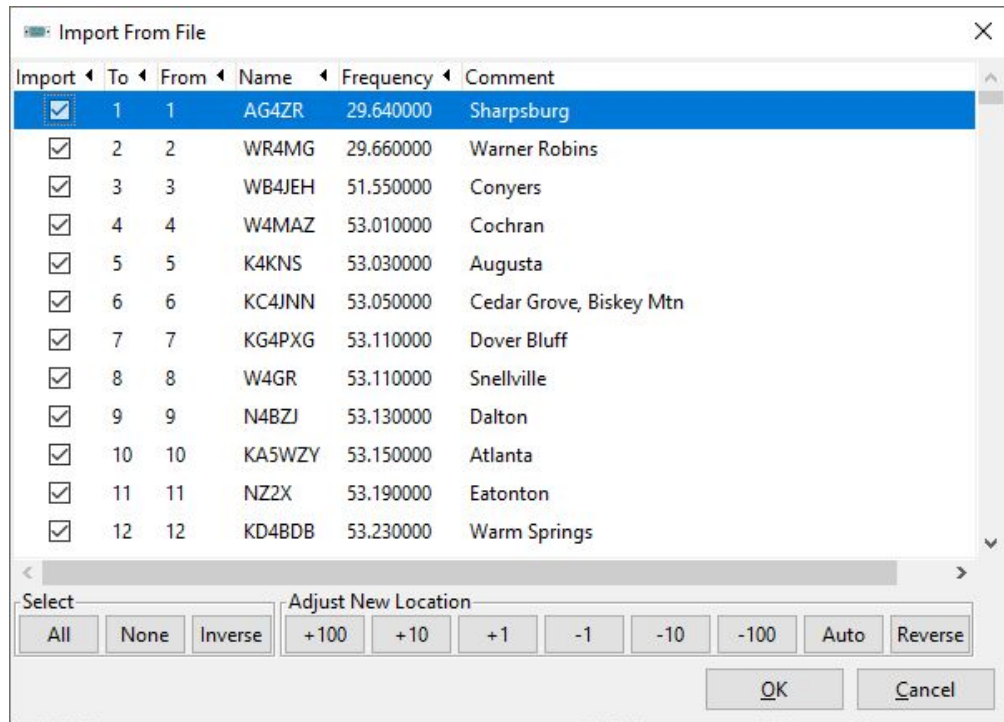


Make sure to select  
**RepeaterBook political query**

Then in the popup fill in  
the State (Georgia)

Then press OK

# Things to watch for



If you started from a new file pressing OK works fine...

IF you are on an active spreadsheet you need to Adjust where to dump these as it wipes out your previous settings.

**OUCH!**

# Save often with meaningful names

CHIRP

Generic CSV: Generic\_CSV\_GA-Repeaters.csv

Memories Memory Range: 0 - 999 Refresh Special Channels Show Empty Properties

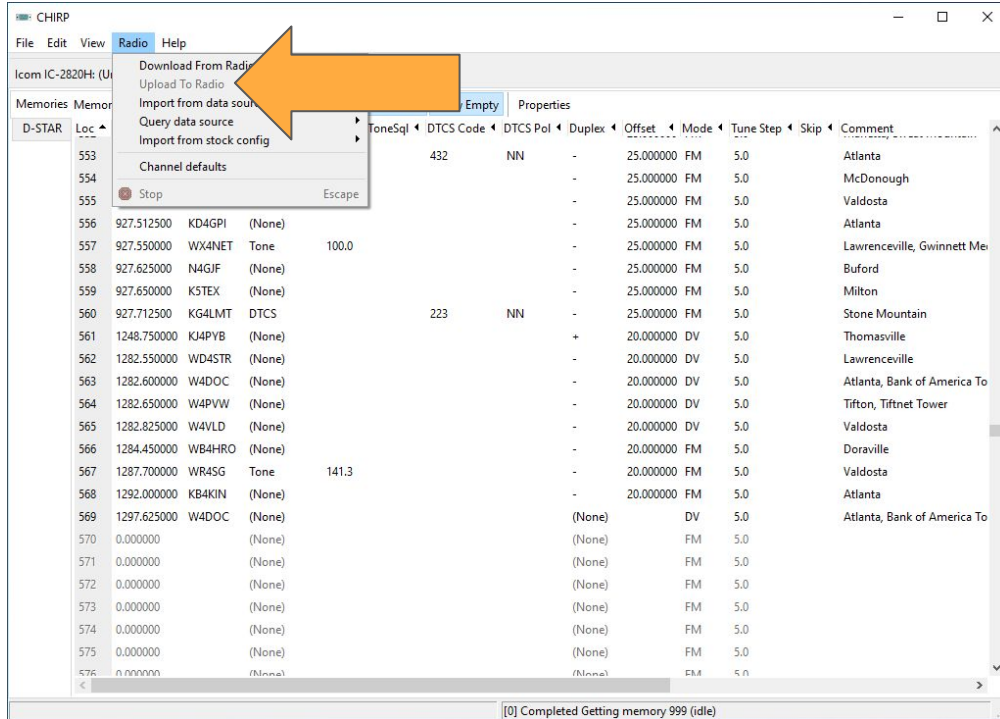
| D-STAR | Loc | Frequency   | Name   | Tone Mode | Tone  | ToneSql | DTCS Code | DTCS Pol | Duplex | Offset    | Mode | Tune Step | Skip | Comment                     |
|--------|-----|-------------|--------|-----------|-------|---------|-----------|----------|--------|-----------|------|-----------|------|-----------------------------|
|        | 553 | 927.112500  | K5TEX  | DTCS      |       |         | 432       | NN       | -      | 25.000000 | FM   | 5.0       |      | Atlanta                     |
|        | 554 | 927.137500  | W4NOC  | Tone      | 103.5 |         |           |          | -      | 25.000000 | FM   | 5.0       |      | McDonough                   |
|        | 555 | 927.487500  | WR45G  | Tone      | 100.0 |         |           |          | -      | 25.000000 | FM   | 5.0       |      | Valdosta                    |
|        | 556 | 927.512500  | KD4GPI | (None)    |       |         |           |          | -      | 25.000000 | FM   | 5.0       |      | Atlanta                     |
|        | 557 | 927.550000  | WX4NET | Tone      | 100.0 |         |           |          | -      | 25.000000 | FM   | 5.0       |      | Lawrenceville, Gwinnett Me  |
|        | 558 | 927.625000  | N4GJF  | (None)    |       |         |           |          | -      | 25.000000 | FM   | 5.0       |      | Buford                      |
|        | 559 | 927.650000  | K5TEX  | (None)    |       |         |           |          | -      | 25.000000 | FM   | 5.0       |      | Milton                      |
|        | 560 | 927.712500  | KG4LMT | DTCS      |       |         | 223       | NN       | -      | 25.000000 | FM   | 5.0       |      | Stone Mountain              |
|        | 561 | 1248.750000 | KJ4PYB | (None)    |       |         |           |          | +      | 20.000000 | DV   | 5.0       |      | Thomasville                 |
|        | 562 | 1282.550000 | WD45TR | (None)    |       |         |           |          | -      | 20.000000 | DV   | 5.0       |      | Lawrenceville               |
|        | 563 | 1282.600000 | W4DOC  | (None)    |       |         |           |          | -      | 20.000000 | DV   | 5.0       |      | Atlanta, Bank of America To |
|        | 564 | 1282.650000 | W4PVW  | (None)    |       |         |           |          | -      | 20.000000 | DV   | 5.0       |      | Tifton, Tifnet Tower        |
|        | 565 | 1282.825000 | W4VLD  | (None)    |       |         |           |          | -      | 20.000000 | DV   | 5.0       |      | Valdosta                    |
|        | 566 | 1284.450000 | WB4HRO | (None)    |       |         |           |          | -      | 20.000000 | FM   | 5.0       |      | Doraville                   |
|        | 567 | 1287.700000 | WR45G  | Tone      | 141.3 |         |           |          | -      | 20.000000 | FM   | 5.0       |      | Valdosta                    |
|        | 568 | 1292.000000 | KB4KIN | (None)    |       |         |           |          | -      | 20.000000 | FM   | 5.0       |      | Atlanta                     |
|        | 569 | 1297.625000 | W4DOC  | (None)    |       |         |           |          | (None) |           | DV   | 5.0       |      | Atlanta, Bank of America To |
|        | 570 | 0.000000    |        | (None)    |       |         |           |          | (None) |           | FM   | 5.0       |      |                             |
|        | 571 | 0.000000    |        | (None)    |       |         |           |          | (None) |           | FM   | 5.0       |      |                             |
|        | 572 | 0.000000    |        | (None)    |       |         |           |          | (None) |           | FM   | 5.0       |      |                             |
|        | 573 | 0.000000    |        | (None)    |       |         |           |          | (None) |           | FM   | 5.0       |      |                             |
|        | 574 | 0.000000    |        | (None)    |       |         |           |          | (None) |           | FM   | 5.0       |      |                             |
|        | 575 | 0.000000    |        | (None)    |       |         |           |          | (None) |           | FM   | 5.0       |      |                             |
|        | 576 | 0.000000    |        | (None)    |       |         |           |          | (None) |           | FM   | 5.0       |      |                             |

[0] Completed Getting memory 999 (idle)

This eye-chart shows  
569 memories

Some memory channels  
are skipped

# Let's try to WRITE this list to my IC-2820



Note that Upload to Radio is grayed out

You have to **READ** before you can **WRITE**

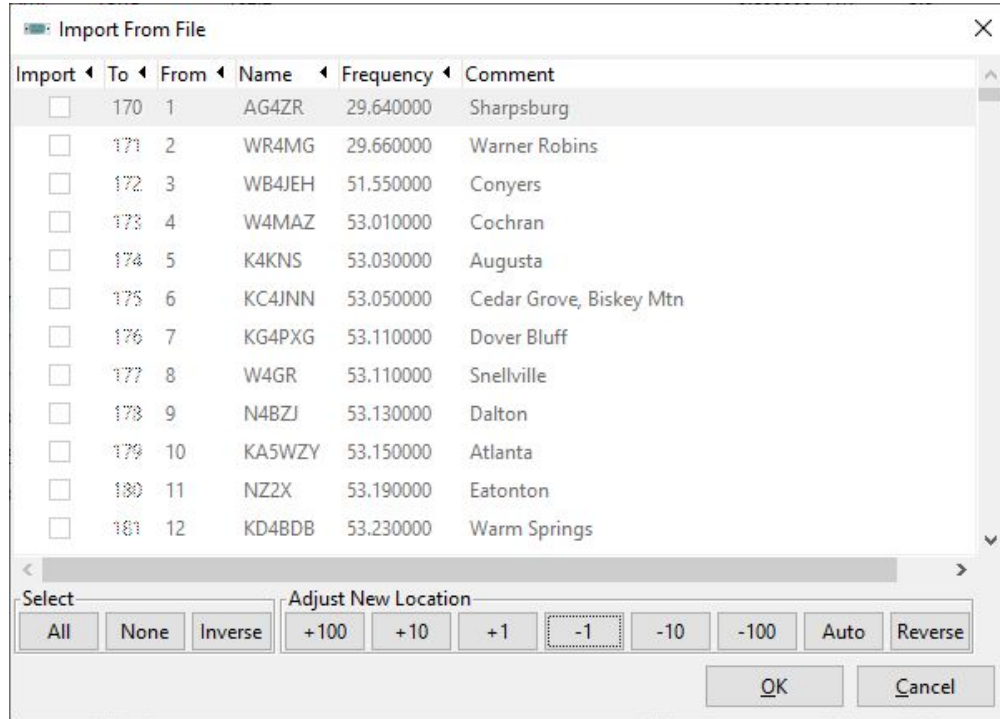
So I'll RE-READ from my radio or select a file I read from my radio

# But what if I added the GA repeaters to my TX file

| Banks      | Loc | Frequency  | Name   | Tone Mode | Tone  | ToneSqr | DTCS Code | DTCS Pol | Duplex | Offset   | Mode | Tune Step | Skip | URCALL | RPTICALL |
|------------|-----|------------|--------|-----------|-------|---------|-----------|----------|--------|----------|------|-----------|------|--------|----------|
| Bank Names | 152 | 146.840000 | WSWXW  | (None)    |       |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
| D-STAR     | 153 | 146.740000 | KASAMP | Tone      | 162.2 |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
| Settings   | 154 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 155 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 156 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 157 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 158 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 159 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 160 | 444.925000 | NSYEO  | Tone      | 100.0 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 161 | 442.825000 | WSTEY  | Tone      | 114.8 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 162 | 444.950000 | KC5WLF | Tone      | 110.9 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 163 | 441.775000 | WSJWB  | Tone      | 131.8 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 164 | 442.400000 | KSFX   | Tone      | 141.3 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 165 | 444.100000 | WA5ESR | (None)    |       |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 166 | 442.400000 | KSFX   | Tone      | 141.3 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 167 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 168 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 169 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 170 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 171 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 172 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 173 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 174 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 175 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |

I have 166 memories used

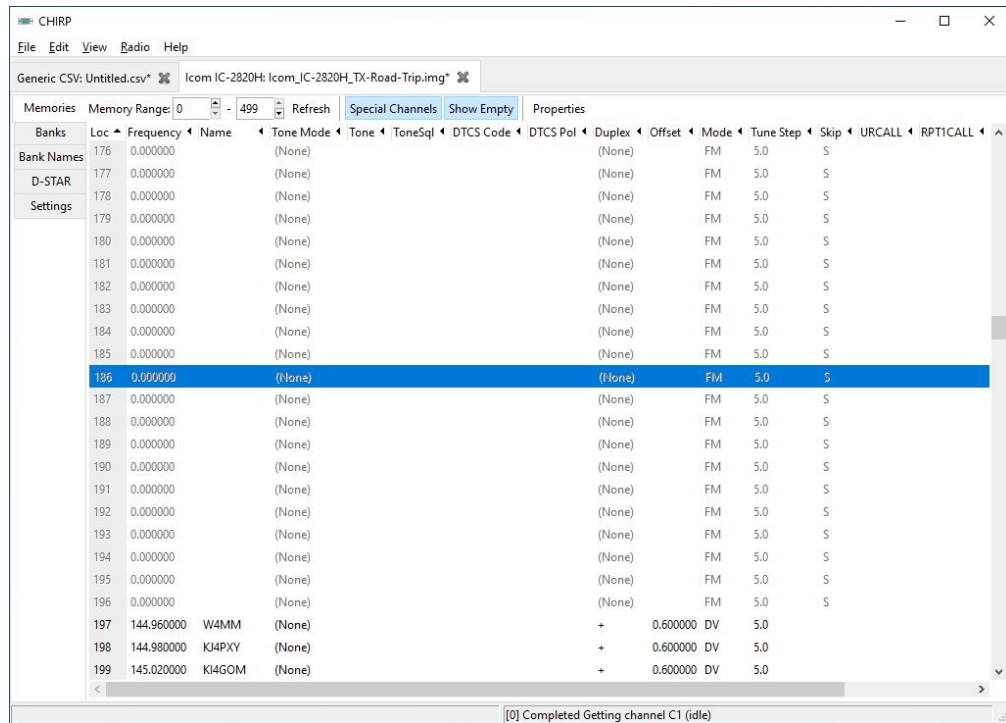
# Here is the Import From File screen shot



- Using the Adjust New Location buttons I set the import to 170
- Use the +100 +10 +1
- -1 -10 -100 to set the From start point
- Looks good
- See what happen



# Not what you were expecting - But it's OK



| Banks      | Loc        | Frequency | Name   | Tone Mode | Tone | ToneSql | DTCS Code | DTCS Pol | Duplex | Offset   | Mode | Tune Step | Skip | URCALL | RPTICALL |
|------------|------------|-----------|--------|-----------|------|---------|-----------|----------|--------|----------|------|-----------|------|--------|----------|
| Bank Names | 176        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
| D-STAR     | 177        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
| Settings   | 178        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 179        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 180        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 181        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 182        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 183        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 184        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 185        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 186        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 187        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 188        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 189        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
|            | 190        | 0.000000  |        | (None)    |      |         |           |          | (None) |          | FM   | 5.0       | S    |        |          |
| 191        | 0.000000   |           | (None) |           |      |         |           | (None)   |        | FM       | 5.0  | S         |      |        |          |
| 192        | 0.000000   |           | (None) |           |      |         |           | (None)   |        | FM       | 5.0  | S         |      |        |          |
| 193        | 0.000000   |           | (None) |           |      |         |           | (None)   |        | FM       | 5.0  | S         |      |        |          |
| 194        | 0.000000   |           | (None) |           |      |         |           | (None)   |        | FM       | 5.0  | S         |      |        |          |
| 195        | 0.000000   |           | (None) |           |      |         |           | (None)   |        | FM       | 5.0  | S         |      |        |          |
| 196        | 0.000000   |           | (None) |           |      |         |           | (None)   |        | FM       | 5.0  | S         |      |        |          |
| 197        | 144.960000 | W4MM      | (None) |           |      |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
| 198        | 144.980000 | KJ4PKY    | (None) |           |      |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
| 199        | 145.020000 | KI4GOM    | (None) |           |      |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |

The memories start at 197 because the input file listed 27 10m and 6m repeaters that the IC-2820 can't use.

$$170+27=197$$

Remember to save your file with a meaningful name

# Frequencies out of my radios range are removed.

● — 10m

● — 6m

● 2m

● 1.25m (Receive Only)

● 70cm

● — 33cm

● — 23cm

# Select memories to delete

CHIRP

Generic CSV: Untitled.csv Icom IC-2820H: Icom\_IC-2820H\_TX-Road-Trip-Plus-GA.img Icom IC-2820H: Icom\_IC-2820H\_TX-Road-Trip-Plus-GA.img

Memories Memory Range: 0 - 499 Refresh Special Channels Show Empty Properties

| Banks      | Loc | Frequency  | Name   | Tone Mode | Tone  | ToneSql | DTCS Code | DTCS Pol | Duplex | Offset   | Mode | Tune Step | Skip | URCALL | RPTICALL |
|------------|-----|------------|--------|-----------|-------|---------|-----------|----------|--------|----------|------|-----------|------|--------|----------|
| Bank Names | 180 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
| D-STAR     | 181 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
| Settings   | 182 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 183 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 184 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 185 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 186 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 187 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 188 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 189 | 0.000000   |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       | 5    |        |          |
|            | 190 | 0.00       |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 191 | 0.00       |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 192 | 0.00       |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 193 | 0.00       |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 194 | 0.00       |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 195 | 0.00       |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 196 | 0.00       |        | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|            | 197 | 144.       |        | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 198 | 144.       |        | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 199 | 145.       |        | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 200 | 145.       |        | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 201 | 145.080000 | KJ4PYA | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 202 | 146.640000 | WCARC  | Tone      | 162.2 |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 203 | 147.120000 | W2MN   | Tone      | 103.5 |         |           |          | +      | 0.600000 | FM   | 5.0       |      |        |          |

[0] Completed Getting memory 499 (idle)

Use the RIGHT Mouse button to select

Delete ...and shift all memories up

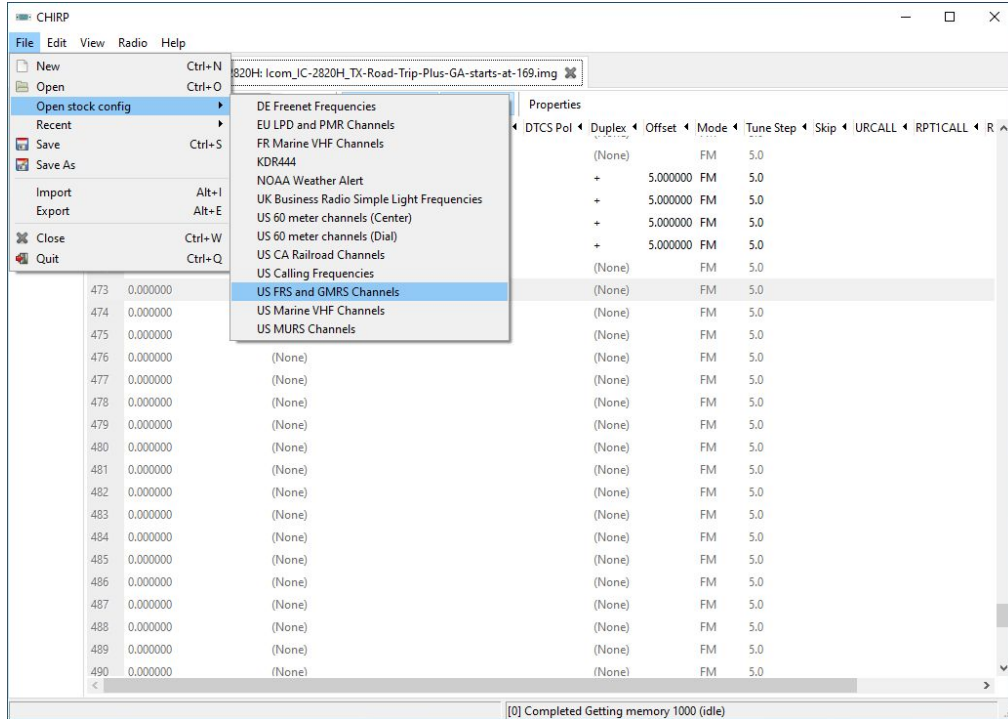
# CHIRP does not get awards for deleting and moving

| Banks      | Loc | Frequency  | Name   | Tone Mode | Tone  | ToneSql | DTCS Code | DTCS Pol | Duplex | Offset   | Mode | Tune Step | Skip | URCALL | RPTICALL |
|------------|-----|------------|--------|-----------|-------|---------|-----------|----------|--------|----------|------|-----------|------|--------|----------|
| Bank Names | 164 | 442.400000 | K5FX   | Tone      | 141.3 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
| D-STAR     | 165 | 444.100000 | WA5ESR | (None)    |       |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
| Settings   | 166 | 442.400000 | K5FX   | Tone      | 141.3 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
|            | 167 | 0.000000   |        | (None)    |       |         |           |          | (None) | FM       | 5.0  |           |      |        |          |
|            | 168 | 0.000000   |        | (None)    |       |         |           |          | (None) | FM       | 5.0  |           |      |        |          |
|            | 169 | 144.960000 | W4MM   | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 170 | 144.980000 | KJ4PX  | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 171 | 145.020000 | KJ4GOM | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 172 | 145.060000 | WD4STR | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 173 | 145.080000 | KJ4PYA | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 174 | 146.640000 | WCARC  | Tone      | 162.2 |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 175 | 147.120000 | W2MN   | Tone      | 103.5 |         |           |          | +      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 176 | 147.120000 | W2MN   | TSQL      |       | 103.5   |           |          | +      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 177 | 145.080000 |        | (None)    |       |         |           |          | +      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 178 | 145.110000 | WA4ORT | (None)    |       |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 179 | 145.110000 | K4NRC  | Tone      | 88.5  |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 180 | 145.120000 | KJ4ZLL | (None)    |       |         |           |          | -      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 181 | 145.120000 | W4PVV  | (None)    |       |         |           |          | -      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 182 | 145.130000 | K4NRC  | Tone      | 156.7 |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 183 | 145.130000 | WR4BC  | Tone      | 100.0 |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 184 | 145.140000 | W2CID  | (None)    |       |         |           |          | -      | 0.600000 | DV   | 5.0       |      |        |          |
|            | 185 | 145.150000 | W4AQL  | Tone      | 167.9 |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |
|            | 186 | 145.150000 | W4MM   | Tone      | 131.8 |         |           |          | -      | 0.600000 | FM   | 5.0       |      |        |          |

That was fun to watch  
CHIRP deleting and moving  
memory channels

Remember to save your  
file with a meaningful  
name

# What if you want to monitor FRS and GMRS



File - Open stock config

US FRS and GMRS Ch

Note this creates a new TAB but you have to click on it to open/see it

# Cut-n-Paste from one Tab to the Next

| D-STAR | Loc | Frequency  | Name         | Tone Mode | Tone | Tone Squelch | DTCS Code | DTCS Pol | Duplex | Offset   | Mode | Tune Step | Skip | Comment | URCALL | R |
|--------|-----|------------|--------------|-----------|------|--------------|-----------|----------|--------|----------|------|-----------|------|---------|--------|---|
| 35     |     | 467.687500 | GMRS 13      | (None)    |      |              |           |          | (None) |          | NFM  | 12.5      |      |         |        |   |
| 36     |     | 467.712500 | GMRS 14      | (None)    |      |              |           |          | (None) |          | NFM  | 12.5      |      |         |        |   |
| 37     |     | 462.550000 | GMRS 15      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 38     |     | 462.575000 | GMRS 16      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 39     |     | 462.600000 | GMRS 17      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 40     |     | 462.625000 | GMRS 18      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 41     |     | 462.650000 | GMRS 19      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 42     |     | 462.675000 | GMRS 20      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 43     |     | 462.700000 | GMRS 21      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 44     |     | 462.725000 | GMRS 22      | (None)    |      |              |           |          | (None) |          | FM   | 12.5      |      |         |        |   |
| 45     |     | 462.550000 | GMRS 550/15R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 46     |     | 462.575000 | GMRS 575/16R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 47     |     | 462.600000 | GMRS 600/17R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 48     |     | 462.625000 | GMRS 625/18R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 49     |     | 462.650000 | GMRS 650/19R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 50     |     | 462.675000 | GMRS 675/20R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 51     |     | 462.700000 | GMRS 700/21R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 52     |     | 462.725000 | GMRS 725/22R | (None)    |      |              |           |          | +      | 5.000000 | FM   | 12.5      |      |         |        |   |
| 53     |     | 0.000000   |              | (None)    |      |              |           |          | (None) |          | FM   | 5.0       |      |         |        |   |
| 54     |     | 0.000000   |              | (None)    |      |              |           |          | (None) |          | FM   | 5.0       |      |         |        |   |
| 55     |     | 0.000000   |              | (None)    |      |              |           |          | (None) |          | FM   | 5.0       |      |         |        |   |
| 56     |     | 0.000000   |              | (None)    |      |              |           |          | (None) |          | FM   | 5.0       |      |         |        |   |
| 57     |     | 0.000000   |              | (None)    |      |              |           |          | (None) |          | FM   | 5.0       |      |         |        |   |
| 58     |     | 0.000000   |              | (None)    |      |              |           |          | (None) |          | FM   | 5.0       |      |         |        |   |

Select the 52 channels to Copy and Paste them to your radio's file

Remember to save your file with a meaningful name

**Do not transmit out of the ham bands**

# You can do the same to add MURS too

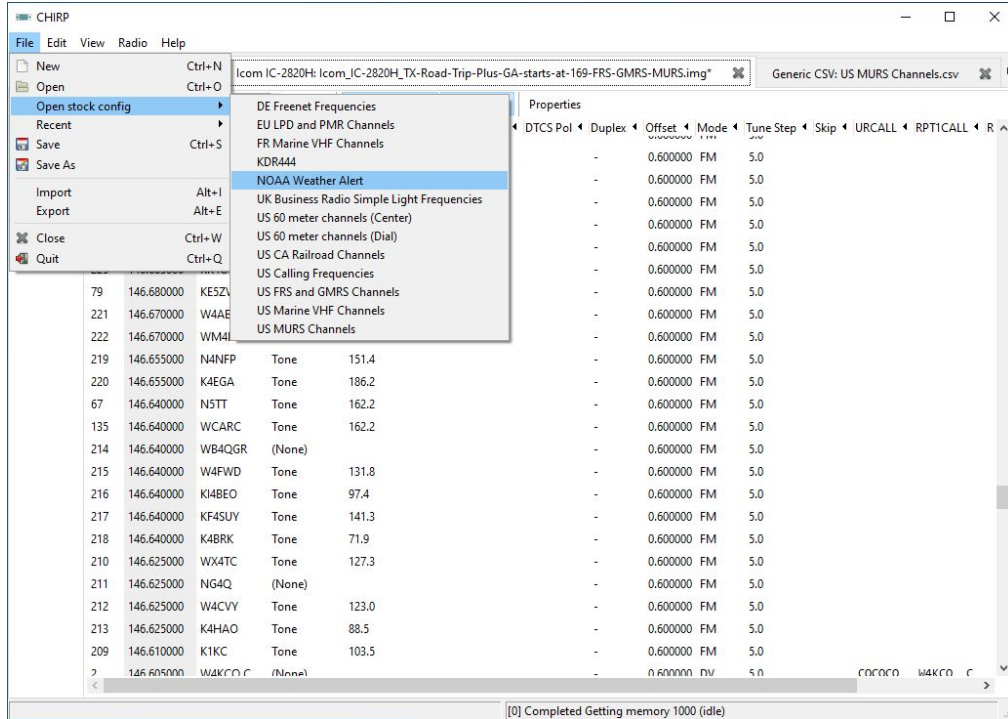
| Bank   | Loc | Frequency  | Name     | Tone Mode | Tone  | ToneSqr | DTCS Code | DTCS Pol | Duplex | Offset   | Mode | Tune Step | Skip | URCALL | RPTICALL |
|--------|-----|------------|----------|-----------|-------|---------|-----------|----------|--------|----------|------|-----------|------|--------|----------|
| D-STAR | 480 | 462.575000 | GMRS 575 | (None)    |       |         |           |          | +      | 5.000000 | FM   | 12.5      |      |        |          |
|        | 481 | 462.600000 | GMRS 600 | (None)    |       |         |           |          | +      | 5.000000 | FM   | 12.5      |      |        |          |
|        | 482 | 462.625000 | GMRS 625 | (None)    |       |         |           |          | +      | 5.000000 | FM   | 12.5      |      |        |          |
|        | 483 | 462.650000 | GMRS 650 | (None)    |       |         |           |          | +      | 5.000000 | FM   | 12.5      |      |        |          |
|        | 484 | 462.675000 | GMRS 675 | (None)    |       |         |           |          | +      | 5.000000 | FM   | 12.5      |      |        |          |
|        | 485 | 462.700000 | GMRS 700 | (None)    |       |         |           |          | +      | 5.000000 | FM   | 12.5      |      |        |          |
|        | 486 | 462.725000 | GMRS 725 | (None)    |       |         |           |          | +      | 5.000000 | FM   | 12.5      |      |        |          |
|        | 487 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 488 | 151.820000 | MURS 1   | (None)    |       |         |           |          | (None) |          | NFM  | 5.0       |      |        |          |
|        | 489 | 151.880000 | MURS 2   | (None)    |       |         |           |          | (None) |          | NFM  | 5.0       |      |        |          |
|        | 490 | 151.940000 | MURS 3   | (None)    |       |         |           |          | (None) |          | NFM  | 5.0       |      |        |          |
|        | 491 | 154.570000 | Blue Dot | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 492 | 154.600000 | Green Do | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 493 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 494 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 495 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 496 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 497 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 498 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
|        | 499 | 0.000000   |          | (None)    |       |         |           |          | (None) |          | FM   | 5.0       |      |        |          |
| 0A     |     | 442.075000 | W8BLA    | (None)    |       |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
| 0B     |     | 442.100000 | W4CVY    | Tone      | 123.0 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |
| 1A     |     | 442.100000 | W4GR     | Tone      | 100.0 |         |           |          | +      | 5.000000 | FM   | 5.0       |      |        |          |

Select the 5 MURS channels and Copy Paste the to your radio's file

Remember to save your file with a meaningful name

**Do not transmit out of the ham bands**

# If your radio didn't come with NOAA frequencies



Simply make room with the shift commands and add them

Remember to save your file with a meaningful name



So there is my high altitude overview of CHIRP

