

Session Four Lesson Plan (Rev 2)

Email Text Message

Before we get into tonight's topic I would like to share something with you that could be interesting. Use this to impress someone or play with your friends minds. You can send a text message to someone's cellphone with D-RATS. You have to know the provider of the person's phone beforehand. Open D-RATS and click on the MESSAGE Tab and select Email from the drop down menu. Enter the person's information in the Destination Callsign field as shown below.

Example: 9155551234@vtext.com (phone [number@providers info](#))

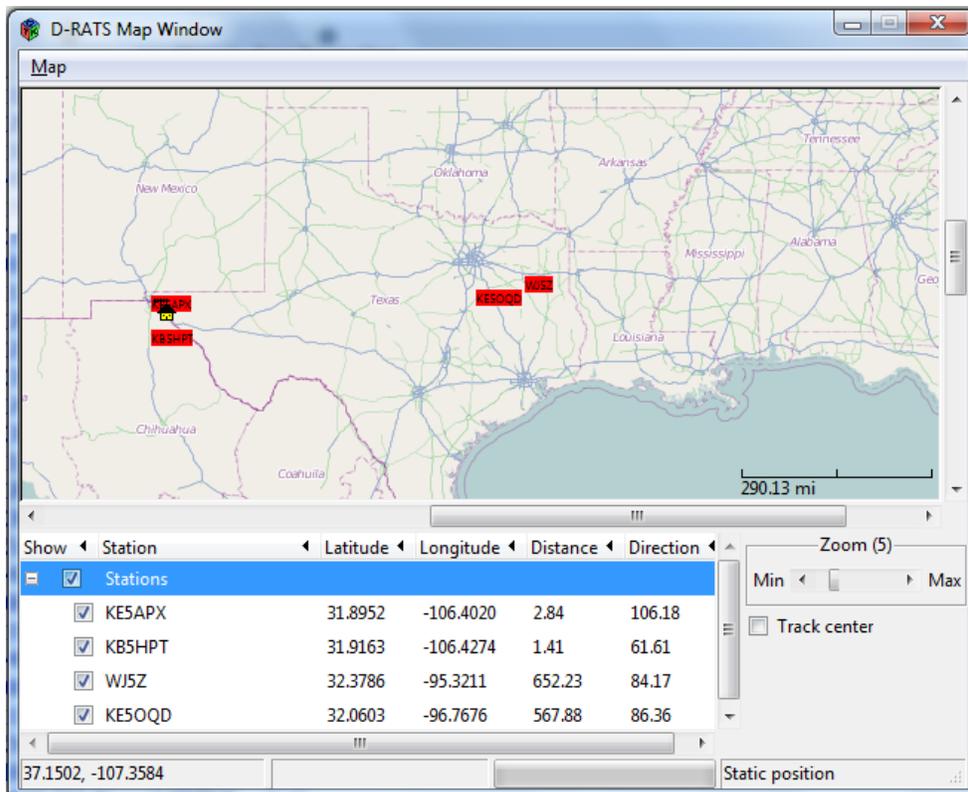
Provider's List

1. Verizon [####@vtext.com](#)
2. Sprint PCS [####@messaging.sprintpcs.com](#)
3. T-Mobile [####@tmomail.net](#)
4. AT&T [####@txt.att.net](#)
5. Nextel [####@messaging.nextel.com](#)
6. Virgin Mobile [####@vmobl.com](#)
7. Boost Mobile [####@myboostmobile.com](#)
8. Cingular [####@cingularme.com](#)
9. Alltel [####@message.alltel.com](#)
10. Cricket [####@mms.mycricket.com](#)

After all of this is done enter your text message and tap SEND. They will be able to send a reply back to you in the normal fashion.

The Map Window

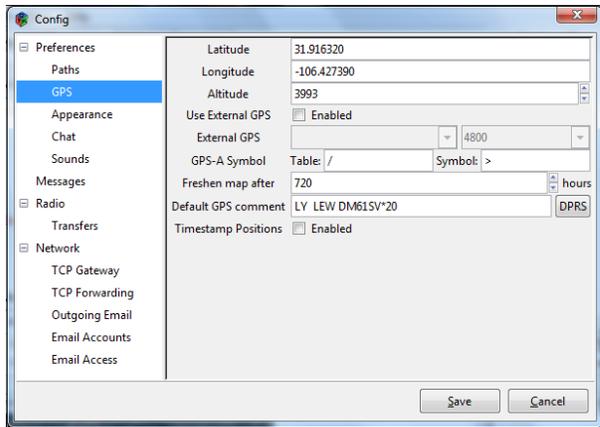
To display the map from the MAIN Window click on VIEW>>MAP.



The map utility allows you to view the location of D-RATS stations, track mobile stations and place markers for static locations. Information displayed will include the Station name and its associated latitude and longitude coordinates, as well as the distance and direction to the station, from your location. D-RATS can import ".csv" files containing static lists of positional information (i.e. Hospitals, Repeater Sites, EOCs, etc.) that can be displayed on the D-RATS Map.

Map Setup

Click on FILE>>PREFERENCES>>GPS



Be sure that the correct Latitude, Longitude and Altitude are entered on the GPS page. D-RATS uses the decimal degrees format. Remember we are located west of the prime meridian in the western hemisphere so our longitude is prefaced with a minus (-). Use the following link to find the latitude and longitude of an address, <http://stevemorse.org/jcal/latlon.php>.

Exercise: On the GPS page click on the DPRS button and select an icon and a message for the station. Click on OK then click on Save. Look on the map window. Your Callsign and icon should appear at your station coordinates. Hover your mouse over the Callsign and right click. Left click "Broadcast This Location." Fill in the Callsign and a short text message then click OK. This will broadcast your coordinates, and display your coordinates on the maps of the rest of the stations in the network. Minimize the map page for now.

Notify the NCS when this exercise has been completed.

Exercise: On the Chat page in the Stations pane right click the mouse and at the very bottom of the window select "Request all Positions". In the map page new station entries should appear at the bottom of the page.

Exercise: On the Map page at the bottom select one of the stations out of your area and double click on it. Your map should move to the location of the station you double clicked on and the tiles should automatically start filling in around that location. Zoom out to 13 or 14 on and you will see streets start to appear. Find your Callsign in the list and double click on it to get back to your location.

Notify the NCS when this exercise has been completed.

To create a map overlay open up a spreadsheet. Fill in the columns as follows:

Column A: Give the location a name.

Column B: Give the location an icon symbol. Get the icon information from File>>Preferences>>GPS>>DPRS. Enter that information in this column.

Column C: Enter the latitude of the location

Column D: Enter the longitude of the location

Column E: Enter an Address

If you want to add any other information add the columns.

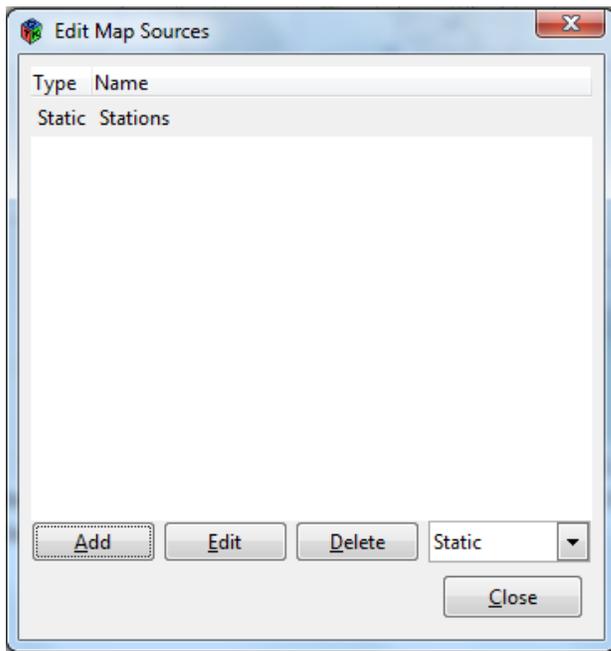
Column F: Enter TRUE to display the location on the map or FALSE not to display the location.

Save this file as a .csv (coma delimited) file in your D-RATS Shared Folder so that others can download the file.

CAUTION: Some locations may be sensitive in nature so use discretion when displaying these locations.

Display a map overlay

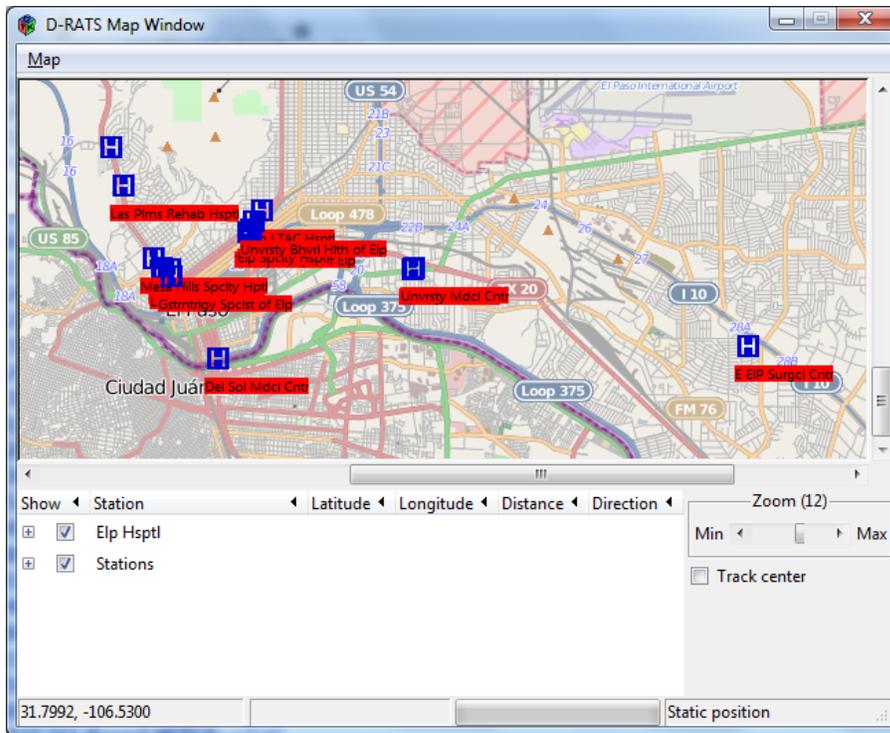
On the map window click on Map>>Edit Source>>Add



Navigate to the D-RATS Shared Folder and select the .csv file. In the Edit Map Source (small) window click on Close.

In the Edit Map Source window select close.

The static locations are now displayed on your map. If you don't want the locations displayed simply uncheck the box in the bottom of the map window or enter False in column F in your .csv file.



We will work more with the map in the Advanced Sessions which will follow later.

After this Session Ends: Go to the D-RATS Yahoo Group

https://groups.yahoo.com/neo/groups/d-rats_group/. Click on the File section. Look for the "USA Map Overlay" folder. You can find additional overlays of other locations.

When you get you overlays completed post them here for the rest of us to see and maybe use some day.

Printing / Saving the Map

D-RATS can print the current map screen, or save it as a ".png" image. Go to the Map menu and select Export, followed by the desired option.

D-RATS Map Downloader

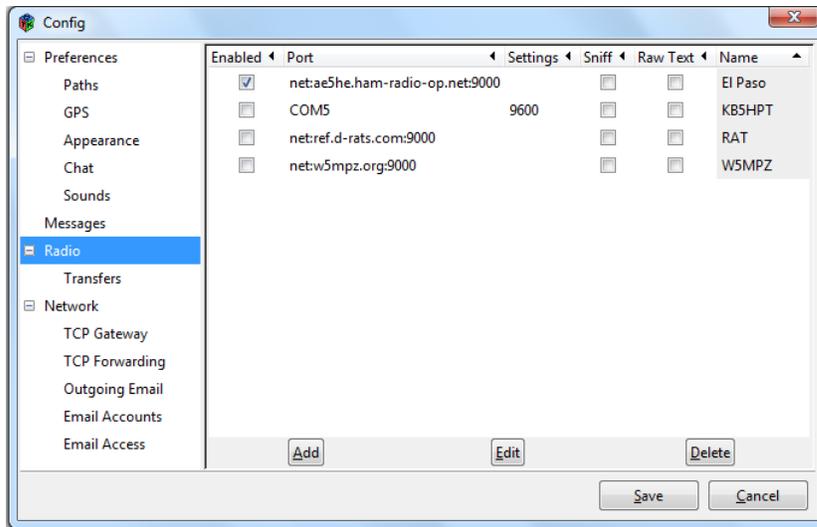
The D-RATS Map Downloader is a separate application that is packaged with and installed as part of the normal D-RATS installation process. It allows a range of maps to be downloaded, across the internet, for later use by D-RATS. This is particularly useful if the computer is likely to be used away from internet connectivity.

We will work with this more in the Advanced Sessions.

Connecting D-RATS to a D-Star Radio

Look in the radio user's guide for the low speed data section, and set the radio for low speed data operation before continuing. Hint. GPS has to be disabled while using low speed data.

Click on FILE>>PREFERENCES>>RADIO



The options are:

- Enabled: If enabled, this port is active and available for use with D-RATS.
- Port: The device to open. Enter the desired port to operate across (i.e. "COM1", or "net:ref.drats.com:9000").
- Settings: The data speed used to connect D-RATS to your radio. This must match your radio, but has no bearing on "net:" type connections such as the Ratreflector.
- Sniff: If enabled, log some information about packets seen that are destined for other stations.
- Receive raw text: If enabled, displays all text received in the chat window.
- Name: A descriptive name for this entry. It will be displayed in other parts of the program.

Click on FILE>>PREFERENCES>>RADIO>>ADD. In the Add a Port window click on the dropdown arrow in the TYPE box. Even though this section is titled *Radio*, there are five types of connections that can be made to D-RATS.

- Serial: A connection to a D-STAR radio.
- Network: A LAN or Internet connection.
- TNC: A KISS TNC.
- Dongle: DV Dongle.
- AGWPE: An AGWPE server connected to a TNC.

Connecting the D-Star Radio to D-RATS

To connect a D-Star radio to D-RATS you will need a data cable for your radio with a 9-pin Din connector that will connect to your computers serial port. If your computer does not have a serial port then you will need to use a Serial to USB adapter to connect the data cable for your radio to your computer.

Note. Not all serial to USB adapters are created equal. Some may not work while others will.

Click on FILE>>PREFERENCES>>RADIO>>ADD. In the Add a Port window type the following:

Name: Once again name it whatever name you want. It's for your use only.

Type: Select Serial from the dropdown menu.

Serial Port: Select the COMM port that your radio is connected to on your computer. You may have to consult Device Manager for this information.

Baud Rate: 9600

Click on ADD then click on Save.

On the Chat page be sure that the Port Selection shows this port as being selected.

You should now be able to send and receive forms such as memo's and ICS forms, do Chat, or file transfers all over the D-Star radio. You will not be able to send email directly using the radio because there is not an Internet connection. *We will have more on this in the Advanced Training.*

Exercise: After you have entered the information above go to FILE>>PREFERENCES>>RADIO and make sure that all of the Port boxes are disabled except for your Com Port box then stop D-RATS. Now restart D-RATS and see if your radio keys up while D-RATS starts. It will send your log on information over your radio notifying others that you are on the air. You are ready to go. If it does not key the radio go back and double check your settings. If they are correct then your serial-to-USB adapter may not be compatible.

UPON COMPLETION OF THE EXERCISE ENABLE THIS PORT AGAIN AND NOTIFY THE NCS THAT YOU HAVE COMPLETED THE EXERCISE. Was the exercise successful?