

This brief document describes how to post a route plan using a KML file and the Google Maps engine. The use of KML files described here is probably the most basic possible use of these files and Google Maps, barely scratching the surface of their capabilities. Nonetheless it's an interesting way to distribute a route plan for a QSO party. Here's an overview of what you need to do:

1. Describe your route either as a series of counties or by developing a series of latitude and longitude points describing the county line crossings
2. Add some description for each county and/or point that tells the viewer what that item represents
3. Package this information up in a KML file.
4. Place the KML file on a web server to make it available to Google Maps.
5. Copy the URL for the KML file into the Google Maps search box.
6. When Google Maps locates the KML file it will present the map along with a link for viewing the map on a web page and a window containing the html required to embed the map in a web page
7. Finally you paste the HTML into the body of the web page that is going to contain the map and place the web page on the server.

Here are some more details about the above process

1.0 Constructing a Route

There are, of course, many ways you could choose to describe your planned route. However in the following it is assumed that you will be using CQ/X to build the KML file and, for that reason, discussion will focus on the following two methods, both available using CQ/X:

1. Describe the route as a simple sequence of counties
2. Describe the route as a series of county line crossings

1.1 Constructing a Route Using a Simple Sequence of Counties

In order to post your route as a simple sequence of counties use the menu item **QP Tools | Plan Route**. On the resulting dialog choose the first county and then follow with the counties in the order in which they will be covered. Once the list is complete click on the button labeled **Export As KML**. In the resulting dialog insert the call sign to be used, select whether the route is Saturday Only, Sunday Only, or Both Days. If the route is for Both Days you will also need to select Sunday's starting county and indicate whether that county will also be the last Saturday county. Once those inputs have been provided click on the button labeled **Prepare KML File**. After review of the KML file you are ready to place the file on a web server as described in section 3.0 below.

1.2 Constructing a Route As a Sequence of County Line Crossings

If you have built or are planning to build the necessary county line crossings file to be used to provide real-time estimates of distance and time to the next county you will have the necessary information to post your route showing the points where you will cross the county lines. Here it is assumed that you have not already built the file describing the crossings. If you already have this file you can skip to section 2.

CQ/X uses the following format for this information in a file where each row corresponds to a county line crossing and the rows are sequenced in the order in which the county lines will be crossed. Each row of the file has the format:

FromCounty-ToCounty HwyID Latitude Longitude

Since the entries in each row are space or tab delimited it is necessary to remove any spaces from the names of the From and To counties (e.g. Red River would be entered as RedRiver). It is also necessary that the HwyID not contain any spaces.

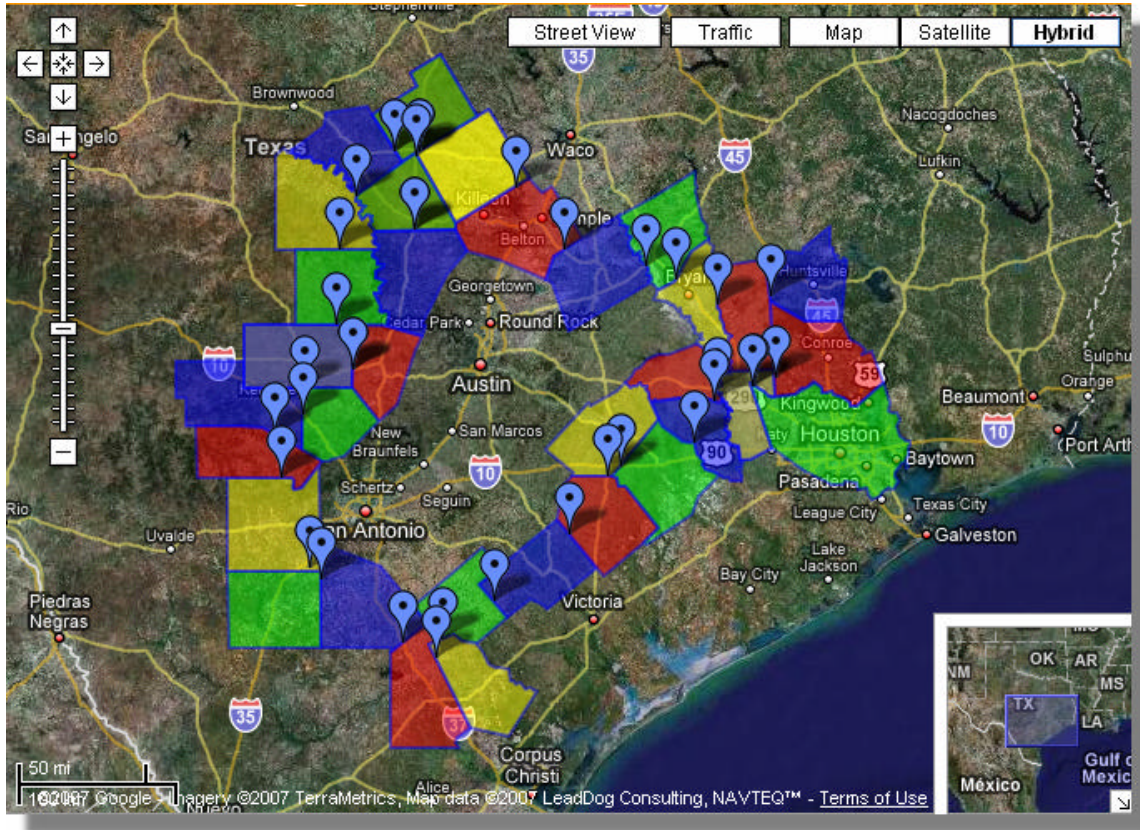
This is the most tedious part of the entire process but here is a method that I've developed after doing this for a number of QSO parties over the last four years. I use Streets and Trips so that's what I'll be assuming you are using. It's probably possible to perform the following with Street Atlas but I'm not familiar enough with Street Atlas to know how the process might work in that application. Here are the steps

1. Open up Streets and Trips
2. Place a pushpin at each county line crossing
3. Type the From-To county names and highway/road number in the top line of the pushpin (FromCty-ToCty HwyID)
4. Do the above for each of the crossings
5. Now use the Route tool to click on each of the pushpins in order and add that pushpin to the route
6. Save the file If you haven't done so already
7. Now click on each item in the Route list to bring up that item on the map. You may need to adjust the zoom level
8. Place the cursor in the pushpin balloon and then move the cursor to the pushpin but don't click the mouse
9. Using the values shown in the locator tool type the lat/lon in the second line of the pushpin balloon
10. Now save that file away and take a break -- you deserve it!
11. Back from your break If you've closed S&T reopen it with the map file you just made
12. Open up a notepad file that you're going to put the data in
13. Now go through the pushpins in sequence doing the following
 - 7a. Click on the pushpin
 - 7b. Do Ctrl+C to copy the pushpin
 - 7c. Alt+Tab to the Notepad
 - 7d. Do Ctrl+V to copy the pushpin data to the Notepad
 - 7e. Hit return to position the cursor in Notepad to the next line
 - 7f. Alt+Tab to S&T and repeat this process for the next pushpin until you've completed your route
14. When you're done save the notepad file.

2. Add Description to Each Crossing and Build the KML File

If you elected to describe the route as a simple sequence of counties you can skip to the step described in Section 3. Otherwise do the following: Open up CQ/X and import the file from the previous step into CQ/X using the menu item QP Tools | Build Route from Crossings. CQ/X will run a validation check on the data in the file and will use color coding to highlight any errors. You should be able to fix the errors in the dialog. If you

have made changes to correct errors click on Apply and answer yes when it asks if you want to save the file. Save the file and then click cancel in the dialog or else reload the new file using QP Tools | Build Route from Crossings. Now click on the button labeled Build KML File. In the resulting dialog provide a call sign that will be associated with this route, and select the format, and then click on Prepare KML File checking to view the file on completion if you wish. If you want to show county boundaries on the resulting map check the box labeled Include County Polygons. Including the county boundaries will show each of the counties as a transparent overlay of the underlying map as shown in the following example.



3.0 Place the KML File on a Web Server

In order for Google Maps to access the KML file the file must be placed on some web server that is accessible by Google Maps. This could be your own personal web server or web site or, if its offered by the sponsoring organization of the QSO party, the web site of the QSO party. If the file is to reside on the sponsoring organization's website then the remaining steps will more than likely need to be performed by the web master of the site.

4.0 Prepare a Web Page Container

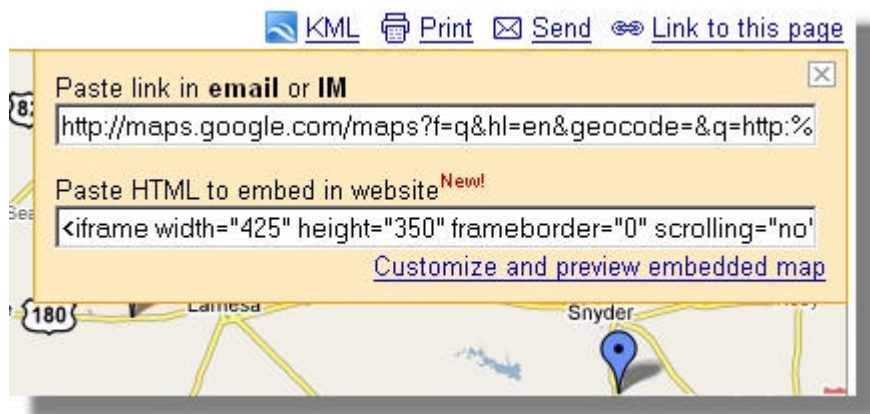
When you carry out the step below you will be able to paste some HTML into the web page that is going to contain the map. It's a good idea to prepare the skeleton of the web page at this point. So do that using your favorite web page design tool – I use NVU which is a free web designer tool. Here's what your page skeleton may look like and will

vary depending on whether you are using style sheets, and whether you include meta data at the top of the file.

```
1. <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
2. <html>
3. <head>
4.   <meta content="text/html; charset=ISO-8859-1"
5.   http-equiv="content-type">
6.   <link rel="stylesheet" href="CQX_StyleSheet.css"
7.   type="text/css">
8.   <title>CallSign 2007 XQP Route</title>
9.   <meta name="description"
10.  content="Map showing route of CallSign in the 2007 XXXX QSO Party.">
11.   <meta name="keywords"
12.  content="GPS, amateur, radio, contesting, mobile, QSO parties, Google maps, CallSign">
13. </head>
14. <body>
15. <h1>CallSign 2007 XQP Route</h1>
16. <!--Your HTML from Google Maps goes here-->
17. </body>
18. </html>
```

5.0 Copy URL into Google Maps Search Box

Open up your web browser and go to Google Maps. Paste the URL for the KML file that you placed on a web server into the Google Maps search box and click on the search button. Google Maps will locate the KML file and display the map for the data in the file or it will display an error message if there are problems with the file. Assuming your file has no errors there will be a link such as the following indicating information on how to embed the map into a web page.



Once you click on the link labeled **Customize and preview embedded map** you'll be presented with the information shown on the screen shot below. After previewing the map to make sure it is what you were expecting find the window (3) below the map that advises to paste the HTML code into the web page that you want to contain the map. Highlight and copy the HTML code provided by Google Maps into the web page container as shown in the previous step. It's best to go into code view in your HTML development tool to ensure that you paste the code into the correct place.

2. Preview



[View Larger Map](#)

3. Copy and paste this HTML to embed in your website

```
<iframe width="425" height="350" frameborder="0"
scrolling="no" marginheight="0" marginwidth="0"
src="http://maps.google.com/maps?f=q&hl=en&g
/><small><a
href="http://maps.google.com/maps?f=q&hl=en&g
style="color:#0000FF;text-align:left">View Larger
Map</a></small>
```

NO5W Posting Routes Using Google Maps CQ/X Client

After the copy and paste are performed the source for your web page will look something like this

```
1. <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
2. <html>
3. <head>
4.   <meta content="text/html; charset=ISO-8859-1"
5.   http-equiv="content-type">
6.   <link rel="stylesheet" href="CQX_StyleSheet.css"
7.   type="text/css">
8.   <title>CallSign 2007 XQP Route</title>
9.   <meta name="description"
10.  content="Map showing route of CallSign in the 2007 XXXX QSO Party.">
11.   <meta name="keywords"
12.  content="GPS, amateur, radio, contesting, mobile, QSO parties, Google maps, CallSign, CQX">
13. </head>
14. <body>
15. <h1>CallSign 2007 XQP Route</h1>
16. <!--Your HTML from Google Maps goes here-->
17. <iframe marginheight="0" marginwidth="0"
18.  src="http://maps.google.com/maps?f=q&hl=en&geocode=&q=http:%2F%2Fnc"
19.  frameborder="0" height="350" scrolling="no"
20.  width="425"></iframe><br>
21. <a
22.  href="http://maps.google.com/maps?f=q&hl=en&geocode=&q=http:%2F%2Fnc"
23.  style="text-align: left;">View a Larger Map</a>
24. <br>
25. </body>
26. </html>
```

The Google Map resides in the <iframe></iframe> tag and there will be a link tag with the label View Larger Map. The data inside the iframe tag is mostly intelligible only to the Google Maps engine but there are a few items you can experiment with to see their effect. The View Larger Map link can be moved around and the label for it changed to suit your needs.

Of course the final step is to check out the resulting page and once it is working to your satisfaction upload it to the web server.