

Reporting Data to the APRS Internet Stream Using APRS TX on iOS Smart Phones

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Introduction

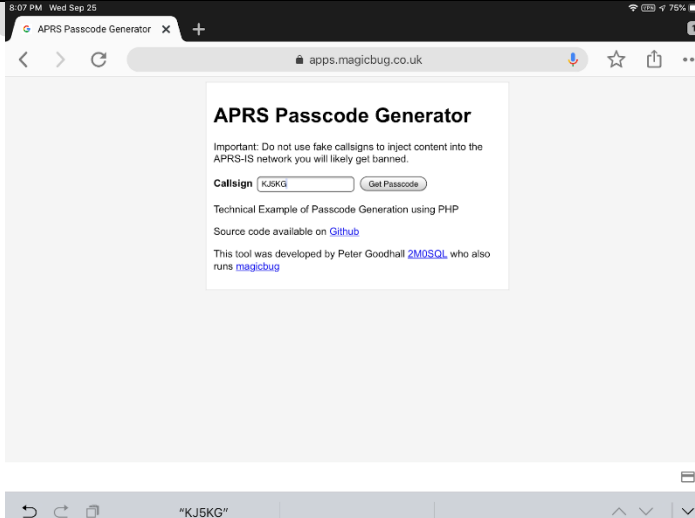
This document describes how to report your position directly to the APRS Internet Stream (APRS-IS) from an iOS smart phone using the APRS TX app. This method of position reporting has pros and cons. Among the pros — its quick and easy to set up. The top con — this method bypasses transmitting your position over RF in the Amateur Radio Spectrum (ARS). This is not inherently bad, but it reduces the chance that RF based APRS stations will see your information. APRS-IS packets can get relayed onto RF but that requires a gateway station in the local area to be configured appropriately. It is not always guaranteed that such a gateway will be available. On the other hand, if there is station monitoring the APRS-IS feed in an Emergency Operation Center (EOC) or Incident Command Post (ICP) where the information can be made available to the appropriate ICS personnel this technique will work well. The key assumption is that the internet is working locally. This is likely a good assumption for a training exercise but for a real deployment APRS over RF will more likely be required.

Assumptions

This document assumes:

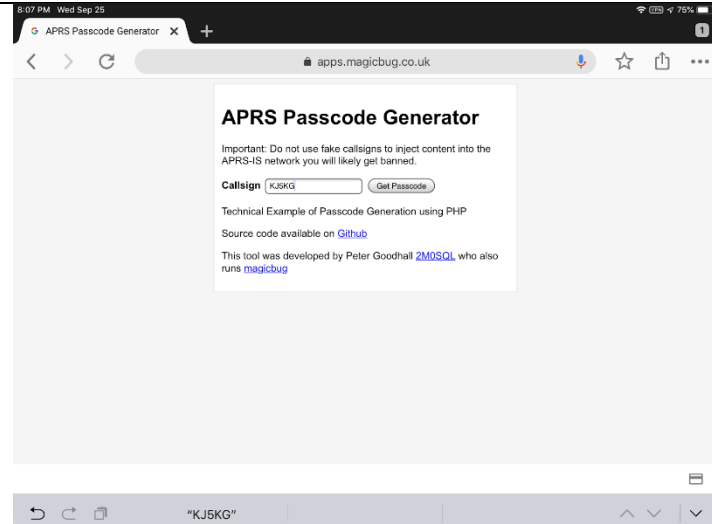
1. The user has an iOS smart phone.
2. The user knows how to install apps onto the iOS smart phone
3. The user is following this guide in a location where internet access is available.

Procedure

Generate an APRS Passcode	
<p>The APRS-IS system requires all licensed Amateur Radio Operators to validate onto the system using an APRS passcode. The passcode is generated from the users Amateur Radio Callsign. There are several APRS passcode generators available on the World Wide Web. Two examples are http://n5dux.com/ham/aprs-passcode/ and https://apps.magicbug.co.uk/passcode/.</p>	

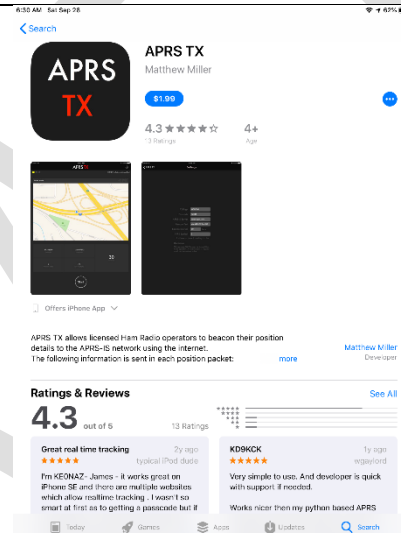
After your callsign click “Get Passcode” and you will be taken to a page that looks like this:

In this example the APRS-IS passcode for KJ5KG is 19171. The passcode for a given callsign does not change. If you change your callsign you will need to generate a new passcode. Write down the generated passcode for convenience.



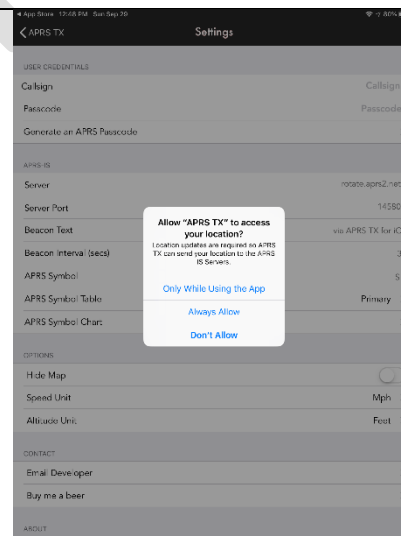
Install APRS TX on your phone

On you iOS smart phone open the Apple App Store and search for “APRS TX”. Downlad and install the app by pressing on the \$1.99 button.

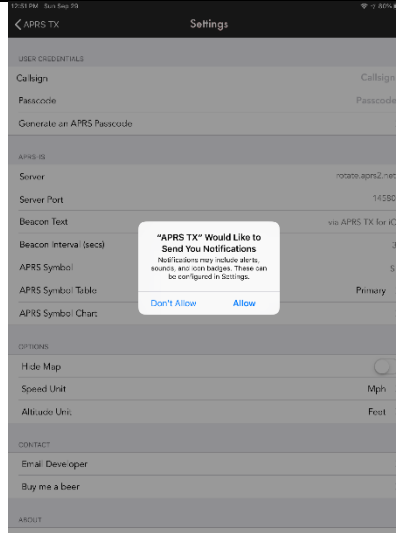


Initial Startup

The first time APRS TX is started a dialog box will appear asking for permission to access the device’s location. Chose *Always Allow*. This will allow APRS TX to access the device’s location while it is in the background.

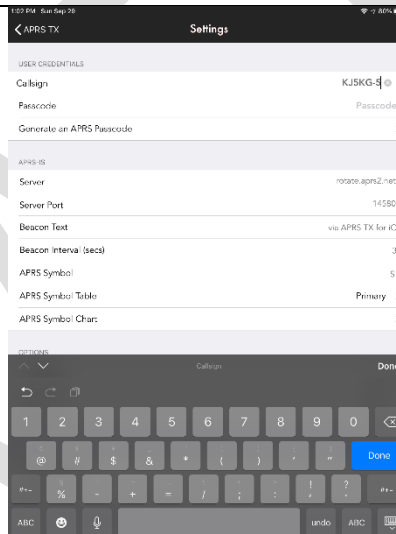


Allow APRS TX to *Send You Notifications*.

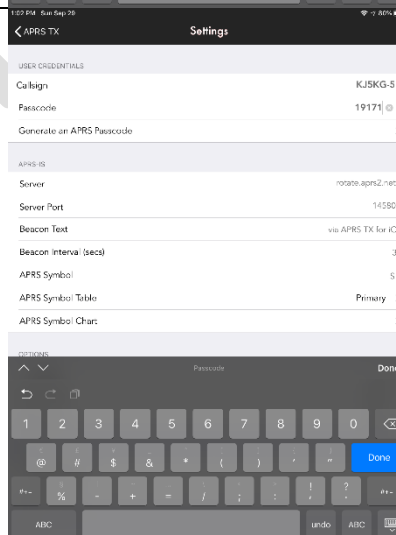


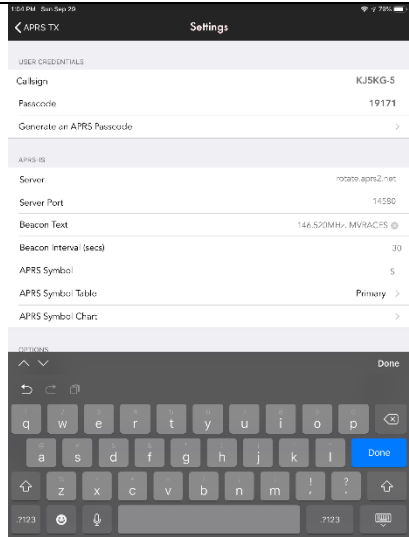
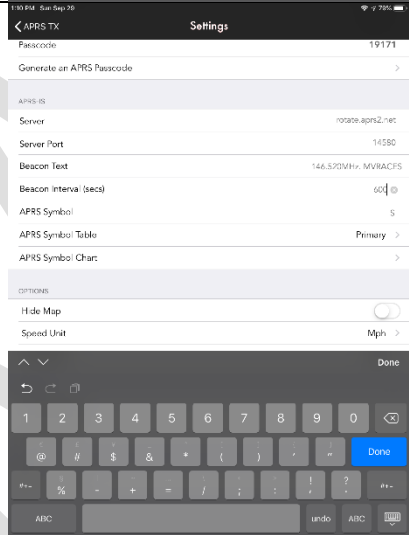
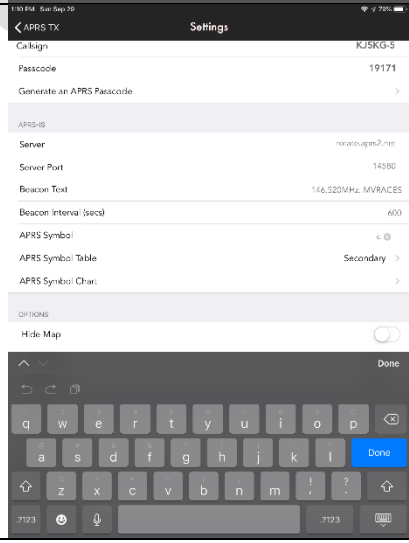
Configure APRS TX

On the *Callsign* line, enter your callsign and the ssid "-5"



On the *Passcode* line enter the APRS passcode that was generated for the callsign used. There is a *Generate APRS Passcode* option. This is a link to purchase an APRS passcode generator app. This is not required if one of the web sites given above is used to generate the passcode.

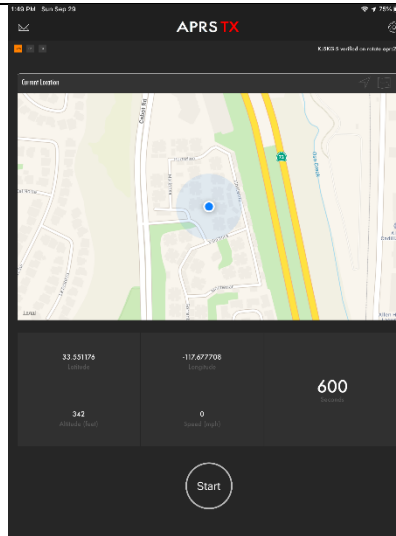


<p>The default settings for the <i>Server</i> and <i>Server Port</i> lines do not need to be modified.</p>	
<p>Change the <i>Beacon Text</i> line to a descriptive comment. A QSY frequency can be entered here using the format described at A full description of the QSY frequency format can be found at http://www.aprs.org/info/freqspec.txt.</p>	
<p>Set <i>Beacon Interval</i> (secs) to 600 (10 minutes).</p>	
<p>Set the <i>APRS Symbol</i> to "c" (lower case) and the <i>APRS Symbol Table</i> Secondary. The <i>APRS Symbol Chart</i> is a helpful guide to choosing a symbol.</p>	

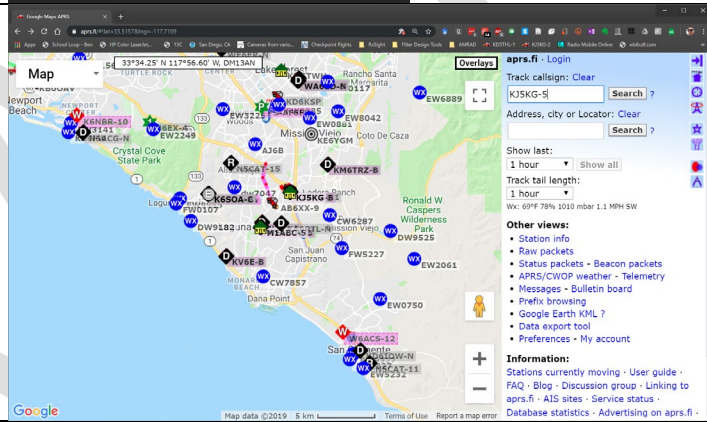
Use the <APRS TX button in the upper left hand corner to return to the main screen.

Start APRS TX

Press the Start button in the lower center of the screen.
It is important to note the APRS is tracker. This means that it sends packets to the APRS-IS but does not receive data from the stream. To see APRS data from the APRS-IS stream use any browser to navigate to <https://aprs.fi>.



To check that your information is making it to the ARPS-IS, go to <https://aprs.fi> from any web browser. Enter your callsign with the SSID in the *Track callsign* box. In this case the SSIS should be -5.



The result should be a Google Map with a balloon showing a RACES icon at your position with the voice frequency and descriptive comment that you entered above.

