

Tablet and Smartphone Apps for the Amateur Radio Operator v2.0

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Introduction

Smartphones and tablets have become universal and ubiquitous devices. Nearly every ham has at least one, in addition to their radio(s).

With the advance of these devices as well as advances in technology in the transceiver, it is becoming much easier to deploy a fully portable station.

This presentation will introduce you to a sampling of apps targeted for and useful to hams. It is in no way a comprehensive list of apps – it's some that I've run across that I've found useful.

If you use an app I haven't mentioned in this presentation, by all means share!



Introduction, v2.0

Since delivering the original version of this presentation in November 2013, a lot of things have changed:

- Faster, more powerful, more capable devices
- Wider variety of apps
- More accessories/ways to interface apps and radio/related hardware

Additionally, traditional computers in tablet form have leapt forward in capability and shrunk in size, giving even more options to a ham operator who wants to be as portable as possible



Disclaimer

Note that I am an iPhone/iPad user, and I've focused on iPhone/iPad apps. Some of these apps do have Android versions, while others have very similar apps developed for Android.



Apps

- Exam Preparation
- Morse Code Practice Apps
- Rig Control Apps
- DXing Apps
- General User Apps/"Multi-Tool" Apps
- Specific Use Apps
 - Logging
 - APRS
 - EchoLink
 - Digital Modes
- Some specific apps to highlight
- Other Useful non-Ham specific Apps



Exam Preparation Apps

- There are lots of exam prep apps, both FREE and FEE, for all test elements
- FREE ones generally do not have the entire question pool available; FEE ones do – bear that in mind when selecting
- Good way to review questions anywhere, anytime
 - Amateur Radio Exam Prep - each license class, iOS): FREE/\$4.99 (Tech/Gen)/\$5.99 (Extra)
 - Ham Radio Exam (iOS, FREE) - each license class
 - Amateur Radio Exams 1.0 Pro (Android, FREE/\$2.99)
 - PalmVE (Android)
 - HamExam (Windows, FREE)



Morse Code Practice Apps

- **Morse Code Driller** (FREE; user.gru.net/nemesis/)
 - The Morse Code Driller includes a sequence of activities designed to help you learn and master the Morse Code. It includes a Review screen, a Mix & Match activity, two variations on Multiple Choice, and finally a drill where you pat the screen to tap out the codes to match test letters and numbers. You can choose to study letters, numbers or both and you can configure the drills to test all the selected letters and/or numbers once, or as many times as possible within a time limit you set.
- **CW With Me** (FREE/\$0.99; www.pignology.net/cwwithme)
 - CW with Me is an app for helping learn morse code. Getting away from impersonal, computer generated morse code, CW with Friends allows you to send and receive messages with real people, over the Internet.
 - When you receive a new message it is initially hidden from view. You can play the CW, practice decoding it then view the original message to see how close you were.
 - You can send and find CQ messages as well as call your friends. In Settings you can manipulate the code speed, set a Farnsworth value and change the CW pitch.
 - The non-free version of the application removes advertisements and has Push Notifications for when you get a new message
- **Morse Key (FREE)/Morse Test /Morse Words**
 - Practice code with a straight-key type interface
 - Code Test
 - Word-based code generator/drill
- **Ham Morse (iOS. \$4.99)**
 - Another Morse-code education package, but one of the best-reviewed ones out there



Rig Control Apps

- 817 Companion (Android, \$4.99)
 - connect to your FT-817 via USB or Bluetooth serial adapter, control band, freq, mode and more from your Android device
- KX3 Companion (Android, \$6.99)
 - same developer as the 817 Companion but with a lot more features for your KX3 – e.g. send/receive CW, PSK31, RTTY from internal or external keyboard
- KX3 KeyApp (Android, \$3.99)
 - turns your Android device into a customizable keypad for your KX3



DXing Apps

- iCluster DX DB (FREE/\$1.99)
 - allows you to create alarms for needed DX countries, callsigns, modes and more
 - Paid version adds map mode
- DX Hunter (\$9.99)
 - even more advanced, includes push notifications from spotting servers
- DXCluster (Android, \$2.49)
 - sends notifications when needed DX stations are spotted
- CommCat Mobile (FREE)
 - DX spotting, rig control, contact log with synchronization to your home shack log



General Purpose Apps

- Ham Radio Reference (iOS, \$0.99)
 - band limits/plans, country codes, local/UTC time, useful formulas/calculators, more (\$0.99)
- RepeaterBook
 - Repeater Directory with locator
- Ham Square
 - Maidenhead coordinate locator
- Ham I Am
 - multi-tool reference
- HamSearch, Ham Radio Call, QRZ Callsign Search
 - Callsign lookup
- DBHam
 - compute distance and bearing based on Maidenhead coordinates
- MUF Predictor (Android)
 - determine MUF between two locations
- QST Magazine



General Purpose Apps (continued)

- Satellite Explorer Pro
 - real-time satellite tracking
- ISS Detector (Android, FREE/\$)
 - Tracks and alerts on ISS passes
 - the fee version tracks amateur radio satellites
- GoSatWatch (iOS, \$9.99)
 - Real time satellite tracking on your iDevice. Find out when and where any satellite including the International Space Station can be seen from any location in the world. Easily identify satellites seen in the sky
- PocketSat3 (Android, \$24.99)
 - Satellite predictor/tracker.
 - There is a free LE version which is recommended for ham use
- HF-Propagation (Windows, FREE)
 - Windows 7 phone app reporting current band conditions for HF and VHF as well as solar and terrestrial propagation information

APRS

- OpenAPRS (\$3.99)
 - OpenAPRS iPhone Edition brings the world of APRS right to your iPhone. Paired with iPhone's built-in map engine, Internet connection and GPS, OpenAPRS gives you access to check your APRS messages, beacon your position and view other Amateur Radio operators anywhere in the world.
- APRS-IS (\$2.99)
 - APRS-IS allows amateurs on the move to send location updates to APRS-IS (the Internet side of APRS) from their mobile device. Once sent, your position can be tracked using services like aprs.fi. You can turn it off at any time. You can also send email, SMS, Tweet or Facebook status update containing an aprs.fi tracking link with your callsign or a map link showing your current location.
- APRS (\$1.99)
 - APRS allows licensed amateurs to connect to an APRS server and receive regional APRS data. Messages are displayed on a Google map with an appropriate icon.
- APRSdroid (Android, \$4.95)
 - Allows position reporting as well as sending/receiving of messages via APRS. It can also display nearby stations as a list or on a map.

Digital Modes

- PSKer (\$2.99)
 - PSK31 receiver and transmitter for iOS devices
 - It is possible to directly connect your iOS device using a USB Camera Connection kit and a USB soundcard adapter (Plantronics, Logitech, etc.) This is best done with a Lightning adapter, since it has a cable, rather than the original which is fixed – the length of the dongles becomes unwieldy for portable applications (e.g. SOTA)
- ircDDB
 - View status and activity of D-STAR network
- WSPR Watch
 - Allows WSPR users to see who can hear you and details of each spot
- PacketPad (\$2.99)
 - Lets you view Packet transmissions on your iDevice (requires proximity for audio or a patch cable from your radio's audio output to your iDevice)



Digital Modes

- Hellschreiber (iOS, \$2.99)
 - Hellschreiber receiver and transmitter for iOS devices
 - DDB
 - View status and activity of D-STAR network
- WSPR Watch
 - Allows WSPR users to see who can hear you and details of each spot
- PacketPad (\$2.99)
 - Lets you view Packet transmissions on your iDevice (requires proximity for audio or a patch cable from your radio's audio output to your iDevice)
- SSTV (iOS, \$2.99) – send or receive SSTV signals without a traditional computer



EchoLink (FREE)

- EchoLink for iPhone is an edition of the EchoLink software that runs on an iPhone or iPod Touch; EchoLink for Android is an edition of the EchoLink software that runs on an Android smartphone or tablet, such as a Motorola Droid or HTC Evo.
- If you own one of these devices and are a validated EchoLink user, you can access the EchoLink system from nearly anywhere where WiFi networking is available. If you have an iPhone, you can also use it to access EchoLink over the cellular data (3G or EDGE) network.
- EchoLink for iPhone is available free of charge from Apple's App Store; EchoLink for Android is available free of charge from the Android Market; tap the Market icon on your phone and search for EchoLink.
- Both iPhone and Android editions focus on the basic features of EchoLink, such as managing the Station List, connecting and disconnecting, and transmitting and receiving voice and text. Unlike the Windows edition, you can be connected to only one node at a time, and there is no Sysop mode. The user interface has been re-designed to function smoothly on the smaller screen of a smartphone, and to take advantage of some of its built-in hardware features.



HamLog (\$0.99) (www.pignology.net)

- HamLog is an amateur radio logging and tools application. It is meant for use when operating portable from the field or mobile.
 - Contact logging and search (including FD/contest/dupe detection)
 - Rig control via the Pigtail device from Pignology
 - QRZ XML integration for QRZ subscribers
 - HamQTH XML integration
 - Automatic name/QTH resolution based on callsign (via QRZ, HamQTH or Pignology databases)
 - Independent callsign lookup tool
 - HamStack control interface (see hamstack.com for more info)
 - And lots and lots of additional features – too many to list here



HamTool (\$1.99)

- Locate a repeater anywhere in the US using your GPS location, ZIP code, or by callsign
- Satellite Pass information
- Solar data and band conditions
- Callsign lookup
- Band plans, Q codes, DXCC prefixes
- Reference Guides for certain rigs
 - FT-857
 - FT-817
 - VX-3R



SOTA Goat (iOS, \$2.99)

- If you like to activate SOTA summits, or work/log them, this app is for you
- Download the latest summit database info and activation info any time
- View and share summit activations and signal reports from SOTAwatch
- Receive push notifications when new activators are spotted in real time
- Summit database and mapping available offline!
- Plot and activate a summit while notifying the SOTA community automatically




Useful Non Ham-Specific Apps:

- Weather Apps
 - MESONET (iOS only) - Mesonet is a compilation of weather data gathered by the National Weather Service's Norman office from over 50 monitoring stations across the state of Oklahoma. It compiles all of that data into a comprehensive picture of weather across the entire state. It is unique to Oklahoma – this is the only state so far to have such a network and such an app. There's a huge amount of weather data available on the app, and I highly recommend it.
- Solar Activity Apps:
 - 3D Sun (being rewritten – watch for it later this year/early next – check 3dsun.org)
 - Solar Activity Monitor
 - Solar Activity Monitor Widget (Android)



A plug for podcasts

- While not technically a ham-specific app, there are several ham-specific or ham-related podcasts out there, often with some very good information. Your device should have a podcast app and a way to download them from the store. Most are free to subscribe to. Examples:
 - Practical Amateur Radio Podcast (great for new hams)
 - SolderSmoke
 - Resonant Frequency
- You can download past podcasts as well and store them on your device for later playback. Great for those of us who travel a lot and have time to kill on plane trips or otherwise.
- Podcasts can also be downloaded and played on your PC



What apps have you found useful?

The background is a solid blue gradient. At the top, there are several wavy, horizontal lines in a slightly darker shade of blue, creating a sense of movement or a horizon line. The rest of the background is a smooth, light-to-medium blue gradient.

Thanks!