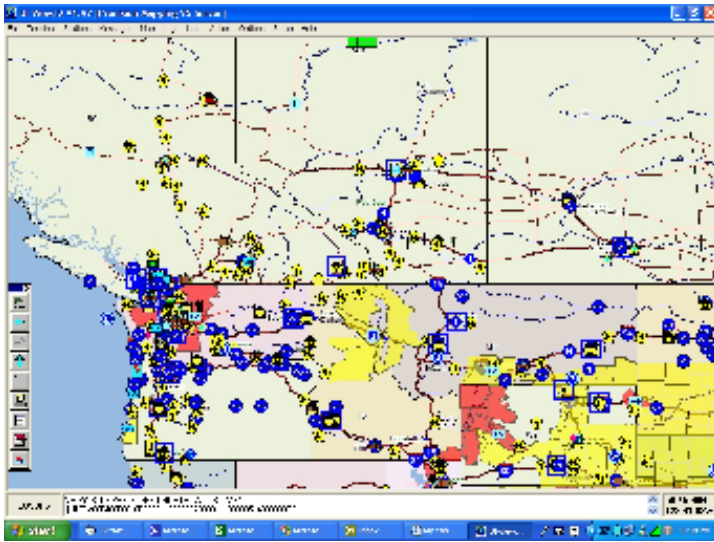


AMATEUR RADIO DIGITAL COMMS IS WHERE IT'S HAPPENING. COME GIVE APRS A TRY!



Automatic Position Reporting System

For PCs, Macintosh, Linux & PDAs

Tracking and Data Relay for Public Service and FUN!

Welcome to APRS. We hope that you will find this publication helpful in learning more about APRS! Other local users are always available to assist you by answering questions, helping set up equipment and help you find the best applications for your needs!

APRS originated as a shareware program authored by Bob Bruninga, WB4APR. Other authors have followed, and there are versions of APRS now that work on PCs, Macintosh, Linux/Unix, Palm, and PDAs. Typically a one-time registration fee gets you a validation number, giving you the ability to store an automatic start-up configuration. Several of the commercial mapping products interface nicely with APRS, giving the user good street-level detailed maps to work with.

The information contained in this flyer will give you an overview of the capabilities of APRS and will, hopefully, encourage you to join us in the NorthWest APRS network!

NWAPRS in British Columbia, Alberta, Northwest Territories, Washington, Oregon, Idaho, and Montana

Regional VHF Frequency: 144.39 MHz 1200baud
Puget Sound Primary: 440.800 MHz 9600baud
Puget Sound Alternate: 144.35 MHz 9600baud
APRS Satellite ops: 145.800 MHz
USA HF: 10.151 LSB/10.147.4 USB 300baud

What exactly is APRS?

In a nutshell, APRS is a graphical means of disseminating real-time position information in a "broadcast" format using standard AX.25 Unnumbered Information (UI) packet frames in an "unconnected" mode. These signals can be re-transmitted by one or more mountaintop digipeaters and the signals are received by others running one of the APRS applications. By sending latitude and longitude location information, automatically provided if a GPS is used, stations are accurately plotted on the receiving station's detailed map or can appear in a list when using an APRS-capable transceiver.

What are some applications for APRS?

APRS is used primarily for object tracking, information passing, and sending short text messages. It can be used for tracking your vehicle while you're out driving around, sending the location of severe weather or other emergency data, or notifying those driving through your area what the IRLP, Echolink, Repeater frequency, or when the next ham club meeting is scheduled.

There are automatic weather stations operating, with costs down to about \$100, and you can set one up yourself to report the current conditions at your QTH.

Some people have APRS trackers in their airplanes and RVs, and when activated, have family members and others keep track of their travels across the county.

APRS is being used to support public service events like parades, marathons, and biking events. It has been used in the Summer Olympics, Tournament of Roses Parade, Seattle Marathon and Coeur d'Alene Ironman, and other "fun" operations. APRS trackers are placed on critical resources (ambulances, buses, police cars, water trucks) and displayed on computers running the APRS application, keeping emergency leaders informed where their assets are located.

What area is covered?

Our regional APRS network now covers most parts of British Columbia, Alberta, Washington, Oregon, Idaho, Montana, and a tiny portion of the Northwest Territories. Many rural areas are gaining coverage and most major thoroughfares are now within the APRS coverage area.

Recently, many of the APRS areas of the USA have been linked via the Internet. This allows users on the 'net to see other users nationwide. Live northwest and USA APRS activity may be seen on the Internet by accessing <http://www.aprs.net>. The local area internet feed can be accessed at northwest.aprs2.net:14577. This IP address can be entered in most of the APRS applications and when connected to the internet provides the big picture of APRS in our region. Other feeds can display worldwide APRS.

Do I need any special equipment to use APRS?

NO! The only equipment necessary for APRS is standard packet station equipment (a computer, a TNC, a radio and an antenna!). There are flavors of APRS for most computers.

Must I have a GPS to operate APRS?

NO! If operating from a fixed location, you'll just need a computer, TNC, and radio. While operating mobile you will need a GPS, because your position is constantly changing and this is how the position is updated over the air. If you're using a simple "trackers", with a GPS, TNC, and radio, you'll need a serial-GPS capable of sending NMEA-0183 data, which most are. If you have a full mobile station, with a laptop computer, you can use either a USB or serial GPS. Fortunately the prices of GPS devices have come down over the years. A simple "puck" GPS with no display can be purchased for \$50, while the granddaddy of APRS GPSs, the AvMap G5, with its 5" color screen and maps of all North America, runs about \$600. There are many choices in between those prices.

What can I expect to see on my APRS screen?

After deciding which application you want to run, and properly configuring the TNC and internet connections, APRS objects should begin appearing on your screen fairly quickly. You will see a variety of different icons, from houses to starts to weather symbols, trucks, airplanes, and more. Clicking on any of the icons will bring up more information about the station or object selected. There are over 1100 stations on the air within the NWAPRS region, and well over 12,000 stations worldwide. You'll need to activate the internet connection to see APRS stations located out of your VHF coverage.

Can I communicate with others on APRS?

Yes, APRS offers both one-line, automatically acknowledged, messages and a direct station-to-station connect using a built-in terminal emulator. You can also send bulletins and announcements, to let others know of important club meeting times, or upcoming events.

What kind of software applications are available?

Most APRS authors have slowed or curtailed development of their applications in recent years, having reached a plateau where things are working pretty well. Program upgrade files are available on the Internet. There are upgrades available for the commercial map products as well, and those are also found on the internet.

Where can I find more information and application software?

Use your favorite internet search engine and enter "APRS software application" for starters. There is also a message blog sponsored by TAPR, and other mailing lists to help with your questions. Most hams running APRS are pretty nice and want to help you get on the air. Just ask!

Where can I find more info about the NWAPRS group?

You can find plenty of information on the internet, by pointing your browser at: <http://www.nwaprs.info> We also have a Summer Gathering at the Valley Camp in North Bend, WA every year, the weekend after Labor Day, where we immerse in APRS, have fellowship, and eat well. It's a fun place to put a face to those call signs you see on APRS.

How much does it cost?

APRS is shareware. You may use the program without charge, however to realize the full capabilities of the system you should register your software. The registration fee varies with the operating system, but runs between \$15 and \$60.00. This gets you a validation number, allowing you to save your configuration and eliminates the logon procedure each time APRS is initialized. If you want street level maps, you typically must purchase them at extra charge.

Welcome to APRS!!! Load it and try it. You'll like it!!!

Thanks to Jim Duncan KU0G for some of the original info in this publication
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