SDRs and Short Wave Listening (SWL)

Back in the pre-transceiver day, hams had separate receivers and transmitters. Most started off listening to the miracle of radio using a standalone receiver. Short wave listening was the 20th century miracle after the invention of the automobile and airplane. One might be surprised at what is on HF even today. You don't even need a shortwave receiver. Just a computer, a browser program, and an internet connection will allow one to listen to tens of thousands of shortwave stations worldwide in real time

Web based free SDR (Software Defined Radio) receivers

There has been interest shown previously regarding listening to Morse code, Single Sideband, AM, and digital transmissions on HF. One does not need an HF rig or shortwave receiver, or a USB dongle to do it. All we need is an internet connection and a computer, which everyone already has.

Keeping this very simple and ACCESSIBLE simply treat the following URL links as remote receivers. These Software Defined remote radio receivers (SDRs) are websites equipped with SDR receivers located all over the planet, which grant free access to anyone who has an internet connection.

In short, we can listen to shortwave live as it is propagated in almost any country on any continent. We can listen to our own signals to see if it is heard in Timbuktu by monitoring our audio sounds over the air if we have transmit capabilities. To listen to Morse, SSB, or AM all you need is your web browser.

You can also display on your computer Morse code or digital protocols such as RTTY, PSK31, PSK63, Olivia, PSK, QPSK, MT63 and many others, using free software applications such as FLDIGI and the remote SDR receiver. Simply tune in the digital signal from the SDR window, and then display the readout with your software application in an adjacent window. Note that FLDIGI does not do Packet, VARA, Winlink, FT8, JT8, or WSPR.

There is one exclusion regarding Morse. All Morse Code programs that display Morse on our monitors from shortwave are less accurate than the human ear and brain. For flawless reproduction of Morse by a computer, the code must be strong, steady, and sent with close to perfect phrasing and spacing such as Morse that is sent by a keyboard or keyer. Even then, the trained human ear is more discerning and accurate.

Now back to web based SDR for all modes.
There are two main worldwide conventional SDR interface webpages,

A: The old-style multi-page SDR format and
B: The KIWI-SDR format
They both have their pros and cons. The KIWI SDRs may be considered more user friendly, but each have nuanced features.

Here's a master list of standard older style SDR receiver websites all over the world (master list).
http://websdr.org/

A Master list of the newer KIWI SDRs
http://kiwisdr.com/public/

Open SDRs Pacific Northwest US
https://rx-tx.info/map-sdr-points?freq_of=&freq_to=&bands=All&country=All&title=cm&qth=cm&url=cm&type%5B3%5D=3
 List of all SDRs (private and public world wide by maps)
https://rx-tx.info/map-sdr-points
http://wirechief.com/SDR.htm

Give them a try. Start with SSB or AM and graduate to digital modes.

Close-in NorCal sites for NVIS:
KFS Half Moon Bay http://websdr1.kfsdr.com:8901/
Kiwisdr KFS Half Moon Bay http://69.27.184.58:8073/
Kiwi Northern Utah http://kiwisdr3.sdrutah.org:8075/
Kiwisdr1 Northern Utah http://kiwisdr1.sdrutah.org:8073/
Northern Utah http://websdr1.sdrutah.org:8901/index1a.html
(About Northern Utah SDR) http://www.sdrutah.org/
KIWI KPH Point Reyes http://198.40.45.23:8073/   or http://kphsdr.com:8073/
(About the KPH SDR receivers) https://www.radiomarine.org/kph-sdrs
Phoenix Arizona http://w7rna.com/

Of possible interest

Washington DC http://na5b.com:8901/
University of Twente http://websdr.ewi.utwente.nl:8901/

Listen to audio live feeds from police, fire, EMS, aviation, Ham, GMRS, Marine, CalFire, and Rail audio feeds worldwide: https://www.broadcastify.com/listen/
Amateur Radio https://www.broadcastify.com/listen/coid/1/amateur
Contra Costa County https://www.broadcastify.com/listen/ctid/189
Alameda County https://www.broadcastify.com/listen/ctid/183

If you aren't hearing audio using many modern browsers (Chrome, Firefox, Safari and Apple devices) try clicking the "Audio Start" button before audio will be heard. Firefox users will need to press the Firefox button.

Therefore, anyone with an internet connection has free access to these internationally placed HF receivers (SDRs) at any time.

Dongles

A dongle is not necessary, but can be a lot of fun because there are software programs available that allow scanning, decoding, vhf, uhf, microwave, police, fire, aircraft, ham, weather, P25 etc.

A SDR dongle is a device that looks like a USB thumb drive. Inexpensive SDR Dongles are available to plug into our computer USB ports. Although not necessary and may add an unwanted and unneeded level of complexity in comparison to the above internet SDRs, however, for the bold inquirer one can transform our computer with a SDR dongle into our own independent local shortwave, VHF, UHF, and microwave receiver.

Very sophisticated and free software is available to run these dongle receivers that allow scanning and decoding of fire, police, public safety, public works, GMRS, Marine, NWS, Aircraft, UPS, follow P25 systems, spread spectrum, ham, and. just about anything anywhere within range.

"Within range", however, comes with a caveat. These dongles come with an indoor shorty antenna, thus ones range is severely limited right out of the box. However, an external outdoor antenna, such as a Discone might be very useful for local VHF, UHF, and Microwave reception.

The following information can be somewhat outdated (a year old) as the technology changes quickly.

For example, for dongle software
SDR++ https://www.sdrpp.org/

Some software for the ultra cheap RTL Dongle
https://www.rtl-sdr.com/big-list-rtl-sdr-supported-software/

Similar Web Reporters
See: Reverse Beacon Network (RBN): for Cw, rtty, and psk 63, psk 31
https://www.reversebeacon.net/main.php?rows=100&max_age=10,days&spotted_call=&hide=distance_km

See: https://pskreporter.info/pskmap.html pskreporter for reports of FT8, WSPR, and other digital sightings

Ham Alert ap for hamalert.org push notifications according to your customized priorities. https://hamalert.org/
For Android
https://play.google.com/store/apps/details?id=org.hamalert.app&gl=US&pli=1

For I-phone Apple
https://apps.apple.com/us/app/hamalert/id1200759798

Radiomail for IOs Digital activity like packet, winlink, etc
https://radiomail.app/

This short blurb is intended to be a good introduction to Web based SDR receivers, but it is not intended to be anything more than a short introduction to SDR dongles or SDR transceivers, which are a bit more advanced subject.

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