UNDERSTANDING
SOFTWARE DEFINED RADIO

Understanding Software Define Radio (SDR) for Field Day event.

This document will teach you basics of SDR.

The second page of this document is examples of SDR software.

The third page provides instructions and tips on using SDR during 2022 ARRL Field Day event.

This will be the first screen when launching SDR software. A frequency spectrum display will render station signals is different modes.

SDR **DETAILS**

Signal Mode

- Select mode of signal (AM, FM, USB, LSB)
- Select bandwidth of signal
- Select RF Gain sensitivity
- Adjust Spectrum viewing level

Signal Filtering

- Noise Blanking
- Noise Reduction
- Notch Filter
- CW Filter

Get to know your SDR software. Each SDR program has similar capability, however the user must learn how to access and adjust each program for signal mode and single filters.

The best way to learn SDR program is to play around with the software to see how it changes the signal. Find a frequency that has a fixed carrier signal and use the notch filter to remove (notch) out the unwanted carrier.

Find a weak station that you wish to listen. Use RF Gain to increase signal. Try changing the bandwidth of the signal removing side interference. Now use Noise Blanking and Noise Reduction to clear the signal further.

You will begin to feel comfortable with what signal processing is necessary to bring in any station.

Just have fun with SDR software.

RESEARCH SDR PROGRAMS

- Many SDR radios and transceivers provide their own SDR software. These include:
    - SmartSDR for FlexRadio transceivers
    - SDRunio for SDRPlay receivers
    - SpectraVue for RFSpace
- SDR radios range from RL-SDR at $20 to RFSpace at $500. Most SDR software programs are free downloads.

Do not limited yourself to only one SDR software package. Try many of the free SDR programs determining when you enjoy best.

FLEXRADIO 6600 FIELD DAY RIG

Short training on rig used with FD 2022