

Finding the Source of Interference

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Agenda

Types of Interference

- QRN (Nature)
 - Storms, Lightning, etc
- QRM (Man Made Noise Generation)
 - Electrical
 - Mechanical



QRN

QRN (Nature)

- Lightning Storms
- Static



QRM

This is the Focus of Our Presentation

- QRM (Man Made Noise Generation)
 - Electrical
 - Power Company (FPL)
 - Mechanical
 - Example a washing machine, welder, electric motors, etc.
- This may or may not be coming from FPL.
 - This may be coming from us or our neighbors



Finding the Source

How do we find the source

- FPL
- Direction Finder
- SDR
- Instrumentation
 - Radio
 - Test equipment



FPL

- FPL
 - This will be power line noise.
 - This comes from Power Line Insulators
 - We call it arcing, but the power company calls it tracing
 - Lightning Arrestors
 - Faulty equipment
 - Back feeding from other businesses
 - Bad Grounding



FPL

FPL have Trained Engineers

These are mostly Hams (but not always)

They are trained and have the equipment to go out and find the source of the interference.



Power Line Noise

Here are some photos of the power line repair at my house in Ca.

The insulators were Arcing (tracing)















Software Defined Radio (SDR)

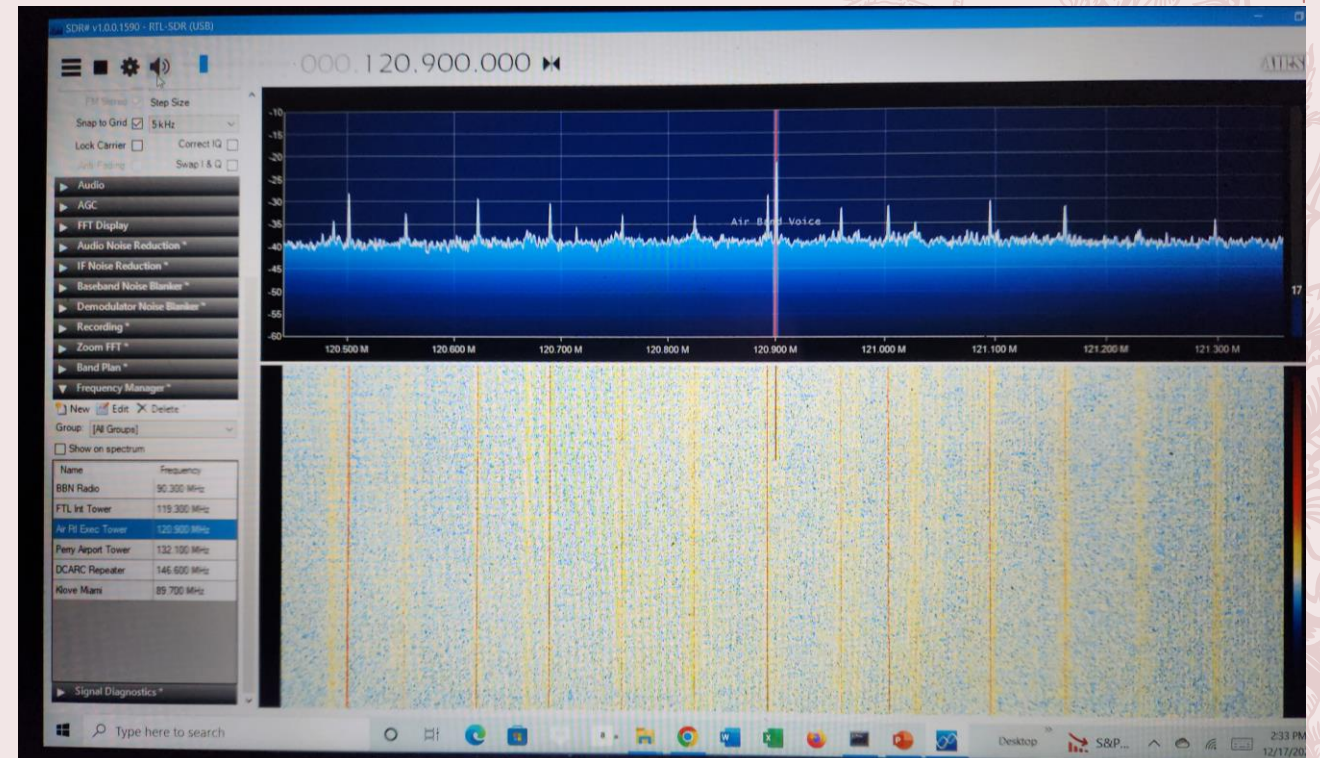
Direction Finder

- SDR dongle plugged into your laptop
- Use a directional antenna to find the source of the noise
- Program called SDRSharp



- Direction Finder

- Software Defined Radio (SDR)



Instruments

- Instrumentation



Instruments

Old Cheap AM Radio

One that has a bar antenna



Thank You

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