

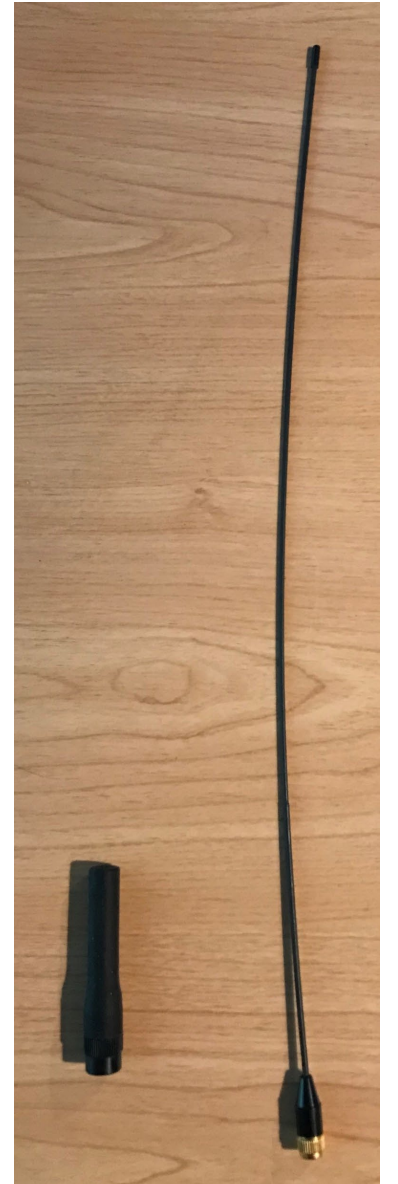
VHF/UHF Radio Setups For Events

Environments

- On Foot/Shadow
 - Lower Power (5 watts)
 - Noisy environments
- Mobile
 - Minimum 25 watts – consider 50 watts
 - Changing terrain
- Base
 - Trickiest setup
 - Power
 - Battery power
 - Mast and antenna

On Foot/Shadow

- 5 watts is mandatory
- Antenna better than rubber duck
- Consider a dual band
- Preprogram Frequencies
 - Group together
- Carry extra batteries



On Foot/Shadow

- Never run VOX
- If you haven't heard from NCS check your PTT
- Try to use a noise blocking headset
- Use a crossband capable mobile to extend



Mobile

- Minimum 25 watts – 50+ preferable
- Dual band
 - Crossband repeat desirable
- Good gain antenna to deal with changing terrain
 - Bigger is usually better
- Noise usually not too much of a problem
- Second battery in parallel with car battery
- Low voltage disconnect
- Have a road hazard system in the car



Base Station (e.g. NCS)

- Lots of challenges here
 - Power
 - Noise
 - Antenna
 - Cables

Power

- AC may not be available
- Generator may not be possible
- Battery to last the day
- 20Ah LiFePO good choice
 - 10Ah max draw seen in an 8-hour day as NCS
 - Light weight
 - Should use a battery monitor



Antenna

- Need to get high
- Use a base station antenna
 - Has built in ground plane
- Mast
 - Tip over
 - Bull float poles
 - Anchor
- What happens when a vehicle is not around



Environmental

- Noise
 - Headset option
- Sun/Rain
 - Shelter 10x10
- Cables
 - Minimize cables
 - Desk
 - Ground

Radio



Radio



Base Radio

- Battery self contained
- Only one cable needed (antenna)
- Radio has BT built in
- Can charge from solar
- Battery monitor
- Battery disconnect to prevent drain
- Can charge cell phones

Rack Components

- 3U Chassis
- Flat 3U Blank for front
 - Don't get the flanged one
- 1U Shelf
- All holes easily cut with a Dremel
- Ventilated Panels Easy Mount
 - Use in back – always flange

