Two-Way Radio Review

Best Practices

- Maximize microphone performance by having the audio coming directly into the microphone and not entering the microphone from the side or back.
  - Speak into the "grill" of the microphone

Best Practices

- Speak in a clear and controlled voice to maximize intelligibility.

- Turn towards (so that microphone grill is facing away from noise source) or move away from noise sources, when practical, before conducting radio transmissions.

Radio Etiquette

- Listen before transmitting, make sure the channel is not already in use.
- Adjust volume to a level that you can hear
- Press the PTT before speaking
- Speak 1-2 inches directly into microphone, in a normal tone of voice
- Speak slowly and clearly
- Know what you are going to say before you transmit
- **BE PROFESSIONAL - everyone hears you.**

Radio Etiquette

- Radio Use
  - Radio Calls:
    - When calling another person state your title/name then the title/name of the person you are calling
      - "Car 49 Host to Medic Smith, over"
      - "Conductor to 1231, over"
- Answering Calls:
  - When answering confirm your title/name and who you are answering:
    - "Medic Smith answering Car 49 Host, over"
    - "1231 answering the Conductor, over"

Radio Terms

i) **<u>"Over"</u>** : should be used at the end of each transmission to indicate that your transmitted message is complete

ii) **<u>"Copy" "Understood" "Understand"</u>**: indicates that you have received and understood the message transmitted to you

iii) **<u>"Out"</u>** : shall be used at the end of the conversation, indicating to all others on the channel that you are complete with your message(s) and that others may use the channel now

   (1) "765 understands, OK to depart Joliet under signal indication, OUT"

iv) **<u>"Affirmative"</u>** : Shall be used instead of "Yeah" and "Yes" – sometimes these short words get lost in the brief keyups

v) **<u>"Negative"</u>** : Shall be used instead of "Nah" and "No" - sometimes these short words get lost in the brief keyups

Example radio call

i) "Car Host 49 calling Car Host on 47, over"

ii) "47 Answering 49, over"

iii) Host 49: "Do you have the Smith Family, party of 4 on your car?, over"

iv) Host 47: "Affirmative 49, Smith Family party of 4 is on our car, over."

v) Host 49: "Copy, we'll show the change on our paperwork here, OUT."

vi) "47 Host, out"

Emergencies

a) Any life threatening emergency that will endanger the passengers, crew, or train in general shall be transmitted immediately and clearly as possible:
  i) Start the transmission with "EMERGENCY, EMERGENCY, EMERGENCY" ….followed by the nature of the emergency.
b) General Medical issues with passengers, and crew:
  i) If not an immediate life threatening emergency (in other words, they aren't going to die within the next 5 minutes) a general call to on board medics may be made
  ii) Paramedics will all have radios and can be called as a general "Medic" or "Medical" over the radio.
    (a) Example
       "Car 43 to Medics, you're needed in Car 43 for a trip/fall of a passenger, over"
    (b) "Medic enroute to Car 43 for a fall, out"
      (i) Additional info can be transmitted if the Medic ask for the info, do not offer any more info over the radio than what is needed to get a response started.

Notes from the "Radio Guy"

- My current personal radio fleet *(mostly CP200s)* is showing its age, the fleet is down from 40 radios to about 30.
- I'm working to update the fleet with brand new radios, but supply issues are hampering those efforts. It's also expensive, about $800 per new radio. I should have 4 new radios by this Fall, total of 34(ish)...if everything arrives, and old ones survive the summer events.
- Examples of old and new radios shown at right.