



# Ham Basics Workshop

## What is Ham Radio?

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# Principles of the Amateur Service

- Recognition of ham radio's exceptional capability to provide emergency communication
- Promote the amateur's ability to advance the state of the radio art
- Encourage amateurs to improve their technical and communications skill
- Expand the number of training operators, technicians, and electronics experts
- Promote the amateur's unique ability to enhance international goodwill

# Emergency communication

- Hams routinely provide communication when government systems fail (which they do)
  - Hurricane Katrina, and many others
  - Tornadoes
  - Floods
- Hams practice with public service events
  - Hood to Coast (~100 hams)
  - Parades
  - Marathons
  - Bicycle road events

# Advance State of the Radio Art

- Software defined radio
- Radio for cancer treatment
- Weak signal processing (WSJT)
- Solar power
- Low earth orbit amateur satellites
- Repeaters
- Single sideband
- Radio and electronic experimentation

# Expand Pool of Trained Operators/Technicians

- During WW2 many early signals personnel were hams, and many more taught others
- Prepared hams help their communities when needed
- Hams learn to solve communication problems

# International Goodwill

- Some hams enjoy talking with other hams far away (DX)
- Some build relationships with hams worldwide

# Things some hams do

- Talk with friends during their commute home
- Talk with distant hams from their car or home
- Participate in contests
- Practice for emergency operation
- Learn new things
- Teach classes or administer license tests
- Have fun

- Bounce signals off the moon
- Talk to the astronauts on the ISS



# License classes

- Technician
  - 35-question test
- General
  - 35-question test
- Amateur Extra
  - 50-question test

# Modes

- FM voice
- Digital voice
- Digital (text)
- Image
- Single sideband
- CW (Morse code)

# Band plan

- [Amateur\\_BandPlan.pdf](#)
- [Hambands\\_color.pdf](#)

# Find ways to use your radio

- Commute time
- Home station
- Contests
- Portable operation
- Parades, special events
- Field Day
- Nets
- Outings
- Experimentation

# Final

- We hope that when you leave today, you will know more than when you came
- We welcome suggestions for future learning events
- After the last class, please help stack the chairs
- 73, and happy learning