

## HAM RADIO STATION VISIT

### Objectives

- Help the scout prepare to fulfill the following merit badge requirements (most of these requirements will be passed off in a subsequent class):
  - 8.a. Visit a Ham Radio station.
  - 8.b. Discuss what types of equipment you saw in use and how it was used.
  - 8.c. Discuss what licenses are required to operate and maintain the equipment.
  - 8.d. Discuss the purpose of the station.
  - 7.a.1. Describe some of the activities Amateur Radio operators can do on the air.
  - 7.a.6.a. Discuss handheld transceivers versus home “base” stations.
  - 7.a.6.b. Explain the uses of mobile amateur radio.
  - 2.b. How do WWV and WWVH help determine what you will hear on radio?
- Demonstrate to scouts some of the operational aspects and capabilities of Amateur Radio and what fun it is.
- This visit will help prepare the scouts for the radio contact they need to make.

### Reference Materials

- Handouts: WWV and WWVH Broadcast Stations. (Depending on order classes are taken, scouts may already have this.)

### Suggested Activities

- Point out and discuss the uses of the equipment in the base station including:
  - HF transceiver - Include power supply, antenna selection switch, antennas, microphone, speaker, earphones and CW key
  - VHF transceivers - Include power supplies, antennas, microphone, speaker
  - UTC clock
  - Log book
  - Copy of FCC regulations, ARRL Operating Manual, ARRL Handbook.
- Show a couple of handheld transceivers (HT's)
- Tour and discuss mobile amateur radio station
- As you discuss each radio, use the Icom band chart to show which frequencies they operate on and what license class is required to operate them.
- Listen to each radio and actually use each type of radio to make a few contacts, if practical.
- Listen to the WWV and WWVH time stations on several frequencies.
- Demonstrate CW – actual contact would be nice, but a couple of operators just sending to each other in the shack would be OK .
- Show some of the QSL cards we have received.
- So the scout can meet the “maintain” portion of requirement 8.c, you might comment that: While the FCC requires a special license to service and maintain commercial broadcast equipment, that is not required for Amateur Radio equipment. Thus, a Ham can build his own equipment, and maintain and service his own equipment. He can also get anyone he feels is qualified to service his equipment.

### Signing Off the Scout's Completion of Visit Requirement

- At the completion of the visit, sign the scout's record sheet for requirement 8.a. The other requirements will be reviewed and signed off in another class.