

## **SENDING AND RECEIVING A MESSAGE**

**Once you have built your own code key, then you can start practicing sending and receiving messages. In a classroom situation students can begin by learning how to send each letter of the alphabet. Morse code is transmitted by on/off keying of a radio-frequency signal. To send code you press the paddle or key. To stop sending, you release the key. Letters in Morse code are made by using a dit (short sound) and a dah (a long sound). Beginning students should start by learning the difference between a short dit and a long dah sound.**

**Once established they can go on to practice and send the letters of the alphabet. The teacher can lead the class by demonstrating the sending of a letter of the alphabet. The class responds by sending back the letter. This can be done by pairs of students sending signals back and forth to each other. Once the alphabet has been established students can begin by sending simple messages. This can be done by having one student send a message to the class and asking what message was sent. Also working in teams sending messages back and forth is good practice.**

**It is good practice to listen to Morse code (CW) being sent over a radio. Listen for someone's CQ (call) between 50.0 and 50.1 MHz on 6 meters or between 144.0 and 144.1 MHz on 2 meters.**

**Are you ready to send and receive a message? There are a few correct procedures you must first learn and then follow.**

- 1. Establishing a contact: LISTEN BEFORE YOU TRANSMIT! To start, send QRL? ("Is this frequency in use?"). If you received a "yes" reply then try another frequency. It is bad manners to transmit on a frequency**

while it is in use. Calling CQ means “I wish to contact any amateur station. The typical CQ goes like this:  
**CQ CQ CQ DE KA7XYZ KA7XYZ KA7XYZ K**  
You call CQ three times followed by your call sign three times. The DE means from. The letter K is an invitation for any station to go ahead. Please note that KA7XYZ is a typical ham radio call sign that a person has.

2. **The QSO:** A QSO is a conversation between radio amateurs. During a contact it is necessary to identify your station only once every 10 minutes. Whatever you do, be certain you send your message at a speed you can reliably copy. Don't hesitate to send PSE QRS (please send more slowly) if needed.
  
3. **ENDING THE QSO:** When it's time to end the contact, briefly thank the other operator for the contact. Then sign out:  
**SK WL7AGA DE KA7XYZ**  
If you are leaving the air, add CL to the end after your call sign.
  
4. After your contact you might send a QSL card to the operator you contacted. QSL cards are written confirmations of an amateur contact. It is fun collecting these cards. You might even get one from a contact with an astronaut on the International Space Station!