

Kids' Passport Presentation

by

The Whitman Amateur Radio Club Inc.

Lets find out some interesting things about **Radio**.

First, - **What is Radio ?** We can recognize that It's one way to send information from one place to another.

Second, - **Radio waves** – They travel through space at the speed of light, (186,000 miles per second), or 300 million meters per second). Once the **radio signal** is sent from the **transmitter** into an **antenna**, **radio frequency electrical energy** jumps off into and through the **air**, (no, you can not see it happen)!

The Ionosphere – Is made up of **air** , up to 300 miles up in the sky, and is electrically charged by the Sun.

Radio waves may bounce from the **ionosphere**, and back to **Earth** where a **radio receiver**, connected to an **antenna**, can listen to the message that was just sent from many miles away.

Communications are sent from place to place, using the radio's electrical energy , (**RF**), without wires connecting the radios.

Third, - **What is Broadcast Radio ?** This information sent can only be heard, such as music, news, or sporting events. This is **one way radio** meant for listening only.

Fourth, **Ham Radio** is an example of **Two-way Radio** that lets you send messages **back and forth**, which means you can talk to someone far away where they can hear you and talk back to you.

Ham radio operators in the U.S. A. are issued individual Amateur licenses and call signs by the FCC. The FCC also issues all licenses and call signs to commercial radio stations as well.

Some more examples of people who use **Two-way Radios** are policemen, firemen, ambulances, taxi cabs, race car drivers, airplane pilots, astronauts, and **especially > Ham radio operators**

HAM RADIO – a 100 year old hobby -

Lets get started - First thing, you will need a license to operate.

By correctly answering 26 of a 35 written multiple choice question examination, you will have earned the FCC Amateur **Technician Class** radio license. All of the questions and answers used are widely published with no secret or trick questions.

The two most popular study manuals available are, The **ARRL** license manual, and **Gordon West** – WB6NOA, license manual.

There are local classes utilizing these systems that teach basics that include some FCC rules, electrical principles and safety.

This new privilege allows you to operate on 10 of the 16 radio frequency bands while using up to 1500 watts of power on some.

What can I do with my new **“Ham ticket?”** There are many things.

Here are just a few ideas <>

- <> Talk to people and new friends in foreign countries.
- <> Talk to people (both local and far) while traveling in your car.
- <> Help in emergencies and natural disasters.
- <> Participate in contests or field day events.
- <> Participate in transmitter hunt games, also build your own direction finding equipment.
- <> Talk to the Astronauts on the International Space Station.
- <> Experiment with Amateur TV, also many digital applications.
- <> Communicate back to Earth through orbiting ham satellites ---

And this is just the beginning!

The Whitman Amateur Radio Club is here to help you. Check out our web site, www.wa1npo.org. you can also contact us by phone to listen to and leave a message– **781-523-5010**.

Here are some more resources to get you started, (includes study materials) www.arrl.org, www.qrz.com, www.w5yi.com

Sample tests on line include – www.qrz.com/testing.pl, www.hamtestonline.com