

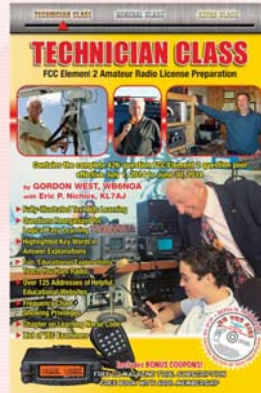
Technician Licensing Class

Getting Into Ham Radio



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You have now shown an interest in getting into ham radio. Exactly what is this hobby in which you have shown an interest?.

Getting Into Ham Radio

- There are 2 million amateur radio operators world wide of which 735 thousand are in the United States
- The Cuyahoga Falls Amateur Radio Club would like to welcome you to amateur (Ham) radio.



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World wide there are over 2 million amateur radio operators. They speak every know language and come in all genders and ages.

Within the United States we have over 735 thousand amateur radio operators¹. In Ohio alone there are about 28 thousand.

The Cuyahoga Falls Amateur Radio Club (CFARC) would like to welcome you to the hobby. But before we can “Push-To-Talk”, you must study hard, pass the element 2 examination and receive your call sign from the FCC. World wide you call sign will be uniquely yours.

¹ Over 1 million in Japan

Getting Into Ham Radio

- Why you need license
 - Your amateur radio can communicate across town, the country and the world.
 - Unlike commercial radio you are allowed to design, build and use equipment without FCC certification
 - You must always stay within the rules of the FCC, Part 97.

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With the wide range of powers and frequencies or bands on which you can communicate, you will be able to communicate across town, across the country and all around the world. The radio frequency spectrum is a vital world wide resource.

As an amateur radio operator, you will be able to design, build and operate radio equipment. You must not step on the toes of other citizens in your community, your country and all around the world. You would not want to interfere with commercial, military, and emergency and safety services.

To prevent this interference the FCC has created regulations and rules in Part 97. If you adhere to these rules and regulations you will not interfere with other hams and non-hams alike.

Getting Into Ham Radio

- Your first radio
 - Most likely a dual band (2 meter and 440 MHz) transceiver
 - Will communicate simplex with local hams (1 to 3 mile radius)
 - Will communicate with repeaters to hams in Summit County.
 - If hand held about 5 watts
 - Else if mobile maximum of 50 watts
 - Else base maximum of 100 watts (rare) 4

Initially you most likely will beg, borrow or steal a dual band transceiver. No maybe you should not steal this radio, but buy it.

The radio will most likely cover the 2 meter and 70 cm (440 MHz) band and be a mobile or handheld radio. If you and another amateur use the same frequency to transmit and receive on then you are operating simplex. Remember any person close by will also be able to receive this signal and hear your conversation. Also you are not license so you can't transmit.

With these frequencies, height above ground equals distance. So many hams and amateur radio clubs have installed station on high points within the county. CFARC's W8VPV repeater is an example. On the 2-meter band listen at 147.270 MHz and on the 70 cm band listen at 444.850 MHz. Listen but don't transmit because you are not yet licensed.

Search the web and you will find other local repeaters. At 8:30 PM on Mondays, you can listen to CFARC's 2-meter and 70cm net. The CFARC web page has a list of many local nets, of which many are in the 2-meter or 70 cm band.

Getting Into Ham Radio

- What else can you do? Plenty!
 - With GPS and TNC you can ARPS
 - Amateur TV (fast scan)
 - Satellite communications to North America, Europe and South America
 - With VoIP you can communicate with hams anywhere in the world
 - Communicate data and voice digitally
 - Public and Emergency services

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As a technician class operator what can you do? You can do plenty. You can rag chew on repeaters. You can provide Skywarn information to the National Weather Service during weather emergencies.

With a GPS, Terminal Network Controller (TNC) and your radio you can participate in Automatic Packet Reporting System (APRS). This allows your location to be entered into a national database in real time. Via the web others can track you even though they may or may not be licensed.

You can watch and produce amateur fast scan TV programs. Amateur TV often uses linked repeaters and you can watch amateur TV produced all over the US and Canada.

There are many OSCARS (Orbiting Satellite Carrying Amateur Radio) that use the technician class bands. With a handheld antenna, a 5 watt handheld and a little like you can talk to Europe or California.

Using the internet and a Voice Over Internet protocol you can talk to hams all over the world with your radio. Want good fidelity in your contacts use a digital repeater.

Getting Into Ham Radio

- Not just a hobby – but a service
 - Provide communication services to local events via ARES of Summit County
 - Provide emergency communications to residence of Summit County – coordinate through ARES of Summit County
 - Provide NWS information via Skywarn of Summit County

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Amateur radio is not just a hobby but a service to the community. You can participate in public service during local races, parades and the like. You and other hams stationed along a marathon can be the eyes and ears to get help to an injured runner or a lost child. Join Summit County ARES (Amateur Radio Emergency Services).

During emergencies like the 911 service going down because of an incident at the ATT switch, you can aid in communications because there is no telephone service. Again contact Summit County ARES to get training and provide service.

Doppler radar helps the National Weather Service see the big picture during weather events. They can see that there could be a tornado, but they need ground confirmation first. Amateurs via Skyward can provide that ground confirmation. Contact Summit County Skyward to become a weather watcher.

Getting Into Ham Radio

- Join a club – get yourself an “Elmer”
 - There is a lot of information in books, magazines and web pages
 - In person help from an Elmer is a good way to learn
 - Join the local amateur radio club – Cuyahoga Falls Amateur Radio Club for fellowship, experience and Elmering
 - Join ARRL and connect with amateurs all over the US

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After studying and passing your test you will know a lot, but there is much more to learn. A great place to find like minded hams is your local amateur radio club. Learn from their years of experience in communication skills, antenna design and placement, kit building, experience with various digital and analog transmitter and receivers. The list topics seems to go on and on.

Need help setting up a station most likely an experience ham will offer to help. Need help deciding on radio A or B, Get some ideas for an experienced ham. Amateur radio clubs exist to help technician class licensees among other things.

Join the ARRL and get informative magazines and newsletters. Help support the organization that helps us to retain our precious bands. Commercial enterprise is always looking for spectrum for a new for profit service.

Get on the air and get active (of course after you are licensed)!

Any Questions???



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Got any questions? Then contact me at N8PZL@arrl.com