

Start Here - Getting your FCC Registration Number (FRN)

- [Ham Radio Prep - How to Register for your FRN](#)

Chapter 1 - Operating Your Radio

- [Local area Nets](#) (RARC)
- [Local area Nets](#) (RATS)

VHF/UHF repeaters

- [RepeaterBook](#)
- [RVA Area Repeaters](#) (RATS)

900 MHz repeaters in the area:

- [FieldComm Association](#)
- <https://www.50215.net/third-richmond-900-mhz-repeater-is-on-the-air/>

1.2 GHz repeaters in the area:

- [FieldComm Association](#) (Analog)
- [RARC D-star repeater](#) (Digital)

Chapter 2 – FCC Rules and Regs

- [FCC Part 97](#)

Chapter 3 – Things To Do!

- Try SSB on VHF/UHF bands
- Try SSB on the 10-meter band
- Try Summits on the Air (SoTA)
- Try Parks on the Air (PoTA)
- Learn and [operate CW](#)
- Build your own antenna
- Let a kid operate 3rd party
- Organize hams to help with a public event
- Join a ham radio club
- Start a ham radio club
- Install a mobile station in your vehicle
- Connect your computer to your radio
- Install a base station in your home
- Help your neighborhood organize emergency communications
- Serve as net control
- Start a regular net on a local repeater
- Build a circuit from a kit or from scratch
- Learn [how to solder](#)
- Help scouts with radio merit badge
- Help offer a license class
- Work to earn radio operating awards
- Pester and help a family member get licensed
- Try a digital voice mode (D-star, DMR, C4FM, See Chapter 10)
- Set up a digital packet or VARA radio station

Ham Reference Document (2026-03-10)

- Participate in [Winlink Wednesday](#)
- Get involved with Emergency Services ([ARES & RACES](#))
- Get involved with Public Service (Special Olympics, Marathons & Event communications)
- Try Foxhunting
- Contesting, from small to global ([CVCC](#))
- Meshtastic low cost comms using LoRa ([RATS Presentation](#))

Chapter 4 – Wavelength, Frequency and Bands

- The [ARRL Amateur Band Plan](#)
- [Southeastern Repeater Association](#) frequency coordination

Chapter 5 – Signal Propagation

- [Space Weather](#) site
- [University of Alaska Aurora Forecast](#) site
- [VOACAP Propagation Prediction](#) site
- [GPS Locked Beacons](#) site

Chapter 7 - Antennas

- [Quick calculator for VSWR](#)
- [Dipole calculator & reference table](#)

Chapter 8 – IT's Electric and Chapter 9 - Hamtronics

Based on prior students' questions about what the math, electric components and circuits will look like, I've attached PDF files of Test Sub-elements T5 and T6 which shows the question pool and highlighted answers that may be used for most all the questions covered in these two chapters. Sub-element T5 has questions that the EIR (Ohm's Law) and PIE (Power Law) triangles would be helpful calculating. They will be good practice for using those aids. Sub-element T6 has the circuit and component questions so you can see how they are presented in the question and understand what you will be asked to recognize and identify.

Remember, don't get lost in the weeds, focus on understanding the question and identifying the answer. Practice, practice, practice!

- There are calculations in Subsection T5 but selecting the right formula for the law is straightforward using the triangle tools. Also remember "Power gets PIE, Ohms get EIR" when choosing which tool!
- The circuit and components are also basic. The questions in Sub-element T6 will guide you for practicing what you need to be able to identify.

This information should be useful after you pass your exam. Focus on the test questions until then.

Chapter 10 - Digital Modes:

- Digital mode sounds: <http://www.w1hkj.com/Modes/>
- Signalink: <https://tigertronics.com/slusbmain.htm>
- DMRVA: <https://www.dmrva.org>
- RATS DMR FAQ: <https://www.rats.net/systems/dmr-resources/dmr-faq>
- Yaesu C4FM & System Fusion: <http://systemfusion.yaesu.com/what-is-system-fusion/>
- D-STAR: <https://rarclub.net/repeaters/>

Chapter 11 – Space Contacts:

- AMSAT: <https://www.amsat.org/station-and-operating-hints/>
- Status of ISS ham radio stations: <https://www.ariss.org/current-status-of-iss-stations.html>
- How to get started on ISS Cross band Repeater: https://vu2nsb.com/iss-cross-band-repeater/#google_vignette

Exam Prep Material

Don't forget your Practice Exams to prepare for the exam!

These online practice exams are extremely helpful for testing your knowledge:

- [Book Section Quizzes & full 35-question practice exams.](#)
- Additional practice exams
 - <https://www.qrz.com/hamtest/>
 - <https://www.eham.net/exams/>
 - [Amateur Radio Practice Site \(AA9PW\)](#) This site requires an account registration to access the exams.
 - [HamStudy](#) was recommended by some prior students. The online exams are free, the phone apps are only \$4

Here is the [complete test question pool with the correct answers](#). There are two different versions which provide simpler or more detailed answers. You may find them helpful depending on how you like to study.

Now that you're licensed, some other things to check out.

Good YouTube resources:

- [Josh Nash, KI6NAZ Ham Radio Crash course](#)
- [Jason Johnston KC4HWB Ham Radio 2.0 YouTube channel](#)
- [GMRS info and some snark - Not a Rubicon](#)
- [YouTube demonstration of the VGC VR-N76 radio](#)

Learn CW with the [Long Island CW Club](#). They teach Morse Code really well.

This is the home site for [the original Winlink Wednesday](#). Global digital emergency communications. There are lots of good references on the page. None of it is required knowledge for the exam, but great ideas about what you can do when you get your license.

Here's some great information about the [Virginia Department of Emergency Management's 2022 interoperability exercise](#). It's a great example of how Amateur Radio can integrate into a state emergency plan. Again, not required exam knowledge but great things you can participate in when licensed.

73,
Dave White, W4IIA