



“OK, I Just Got My License....  
What Do I Do Next?”

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# What Do I Do Next?

## Executive Summary

- ▶ Find a few Elmers: **Your GOAL = Your first QSO ASAP ! (This week)**
- ▶ Understand your license operating limits
- ▶ Decide:
  - ▶ Band
  - ▶ Mode
  - ▶ Rig
  - ▶ Antenna
  - ▶ Integrate into the home geography
- ▶ Budget and scrape up some money (\$\$\$)
- ▶ What gear can you borrow for a little time?
- ▶ References
- ▶ Learn more about the risk of significant RF radiation exposure, shock, lightning
- ▶ Go back to line one above

# What Do I Do Next? Elmers

- ▶ Elmers are your keys to a successful start-up
- ▶ It's easy to find Elmers. There are many in this room.
- ▶ Elmers have been where you are
- ▶ Elmers are resourceful and have many resources
- ▶ Get names, call signs, email, and phone numbers
- ▶ Show them your enthusiasm
- ▶ Engineers or rocket scientists do not necessarily have an advantage over hams without a technical background. Anyone can teach something new to one of these so-called techies. Personal motivation means much more.

# What Do I Do Next?

## What are your license limits?

- ▶ Technician
  - ▶ CW on limited frequency bandwidth 80M, 40M, 15M (CW – Yikes!)
  - ▶ SSB, RTTY, data on limited frequency bandwidth on 10M
  - ▶ All allowed modes on all amateur bands, 6M and higher frequency
  - ▶ Certain power limitations
- ▶ General
  - ▶ All privileges, except reduced frequency bandwidth 80M, 40M, 20M, 15M
- ▶ Extra
  - ▶ All privileges

# ARRL Efforts - Technician Class

- ▶ Proposal to FCC for more Tech privileges on HF bands
- ▶ ARRL podcast: "So Now What?"
- ▶ Development underway for a lifelong learning program – probably an online format
- ▶ Joining ARRL is a good idea
- ▶ Check out [ARRL.org](http://ARRL.org)

# What Do I Do Next? Decide...

## Band (Meters)

- ▶ Low frequency bands > 160M
- ▶ 160
- ▶ 80
- ▶ 60
- ▶ 40
- ▶ 30
- ▶ 20
- ▶ 17
- ▶ 15
- ▶ 12
- ▶ 10
- ▶ 6
- ▶ 2
- ▶ 70 cm and smaller

## Mode

- ▶ CW
- ▶ SSB
- ▶ AM
- ▶ FM
- ▶ Digital
  - ▶ PSK
  - ▶ WSJT (Hint: FT8)
  - ▶ RTTY
  - ▶ DStar, Fusion, DMR
  - ▶ Many others

# Start Operating

- General transmission: CQ [my call] or [your call] [my call]
- CW (Morse code)
  - Abbreviations and "Q" signals
- Phone
  - Mike fright
  - Phonetics
- Digital modes
  - Read the manual
  
- Yes, Elmers help here, too !

# What Do I Do Next?

## Rig (transmitter/receiver)

### Freq. Coverage Terms

- ▶ HF high frequency (160M – 10M)
- ▶ VHF very high frequency (6M – 2M)
- ▶ UHF ultra high frequency (1.25M – higher authorized frequency bands)



### Rig categories/suppliers

- ▶ HF – Popular commercial transceivers
  - ▶ ICOM
  - ▶ Kenwood
  - ▶ Yaesu
  - ▶ Elecraft
  - ▶ Flex
  - ▶ Others
- ▶ Handy talkies- popular VHF, UHF
- ▶ Mobile- popular HF, VHF, UHF
- ▶ Kits and homebrew- HF, VHF, UHF

# What Do I Do Next?

## Antenna

### Relative antenna size

- ▶ Relative size increases as the wavelength (band) designation increases
- ▶ For example:
  - ▶ 40M = approx. 40 meters or 20 meters for  $\frac{1}{2}$  wavelength
  - ▶ 2M = approx. 2 meters or 1 meter for  $\frac{1}{2}$  wavelength
- ▶ Antenna polarization
- ▶ Property space considerations

### Manufactured & Homebrew

- ▶ Designs use wire + insulators or aluminum tube + insulators
- ▶ Generally, manufactured products cost more, but often not so much more at the smaller wavelengths (Bands).
- ▶ Extremely cost effective to make and erect a dipole antenna for higher frequency HF or VHF bands

# What Do I Do Next?

## Integrate into the home geography

- The Shack
  - Empty bedroom
  - Basement Area
  - Warm garage area
- The antenna
  - Backyard
  - Roof
  - Attic
  - CC&Rs



# What Do I Do Next?

## Budget and scrape up some money (\$\$\$)

- What can you afford?
- Break the needs down by equipment:
  - Rig
  - Antenna
  - Accessories
  - Home or yard modifications
- Buy, build, borrow
- You are limited only by your level of motivation!
- ELMERS !!!

## What Do I Do Next?

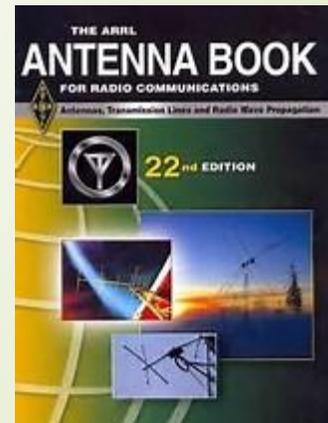
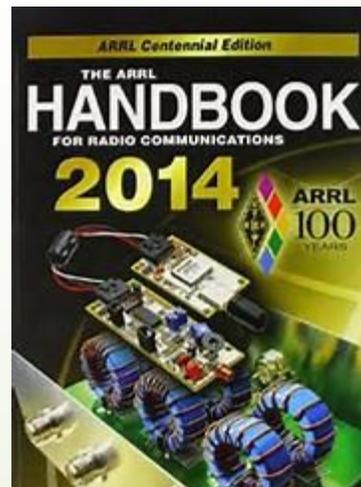
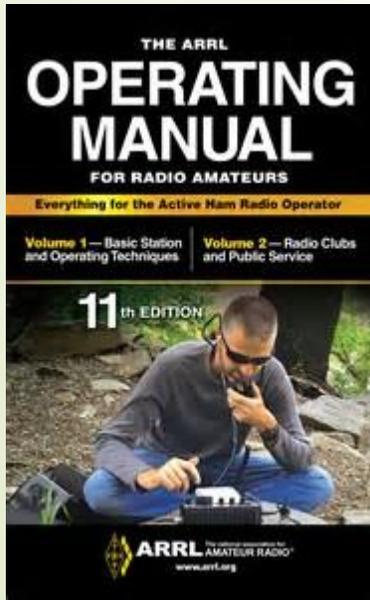
### What gear can you borrow for a little time?

- ▶ This is where you put pressure on your Elmers to help you find stuff if the budget is tight. They will come through!
- ▶ Elmers are also good for seldom needed gear such as borrowing antenna analyzers.
- ▶ Take an Elmer and a few bucks to a hamfest!

# What Do I Do Next?

## References

- References are good but don't get hung up with them.
- ARRL
  - Operating Manual
  - Handbook
  - Antenna Book



# What Do I Do Next? Elmers, Elmers, Elmers!!!

- ▶ Ask them, plead with them, use them to help borrow, assemble and erect equipment
- ▶ Ask them to show you operating techniques
- ▶ Ask them to explain about determining your station risk of electrical shock, RF exposure, and lightning hazards
- ▶ Hurry up: Get that first QSO (Get on the air). WHAT'S YOUR GOAL ?
- ▶ Are you motivated?
- ▶ Thank them, thank them, then thank them again
- ▶ As you pile up experience you better be ready to become an -

# ELMER

# Questions

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