

Ham Radio Technician License Class

Study Guide for Ham Radio 2.0 / 2018-2022 Technician License textbook.

After reviewing the textbook and the YouTube video I observed the following:

- It is assumed that the student has already reviewed Chapters 1, 2, 3, & 4, through page 32.
 - At the bottom of page 31 and the top of page 32 is a list of Topics.
 - These Topics appear to parallel the YouTube presentation.
 - The first ½ of the YouTube (which we watched Saturday, September 4, 2021) covered:
 - ✓ About Ham Radio pp 33-36
 - ✓ Call Signs pp 37-44
 - ✓ Control pp 45-50
 - If you haven't read these pages yet, now is a good time.
 - The last ½ of the YouTube covers:
 - ✓ Mind The Rules pp 51-54
 - ✓ Tech Frequencies pp 55-64
 - ✓ Your First Radio pp 65-68
 - I suggest that you read these pages before the Saturday, September 11, 2021.
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For Saturday, 9/18/21, reviewing the following topics and pages will give you a step up.

Video	Textbook	Pages
Using Your Radio	Going Solo	69 – 78
Repeaters	Repeaters	79 – 86
Emergency Communications	Emergency!	87 – 92

My comments on this (1st half of the 2nd video):

- *Repeaters: The video talks about typical, accepted, normal, usual ... with this in mind:*
 - ✓ *Repeater frequencies can be any frequency so long as what the repeater transmits (sends out, referred to as "repeater out") is within the licensee's licensed frequencies. Most, but not all repeaters are 'coordinated', including the location, elevation, antenna height, repeater pair and output power (PEP), through the Regional Coordinators. This is not an FCC requirement; however, if a non-coordinated repeater interferes with a coordinated repeater, the FCC will likely lean towards shutting down the non-coordinated repeater.*
 - ✓ *Repeater shifts (the difference between the input and output frequencies) are standardized only in that common shifts are used. This is not an FCC requirement, but is driven by frequency availability, avoiding interference, separation for RF reasons, etc. In the 2M Band (144MHz – 148MHz) the 'standard shift is 600KHz; Shifted down in the upper portions of the band, and shifted up in the lower portions of the band. The 70CM (420MHz – 450MHz) the shift is more standardized – 5MHz up! The repeater output frequency is typically 5MHz higher than the repeater input frequency.*

- *The video's heavy reference to the term "break" is new to me. It is common on repeaters (which have a 'time out timer' or TOT) to hear an operator say 'break' and drop the transmission momentarily to let the TOT reset. I looked at all the test questions and could NOT find anything referencing the proper or improper use of "break" in a radio communication setting. The test question most on point calls for the use of "Priority" or "Emergency" to get attention in case of a true emergency (see question T2C06).*
- *The video misrepresents HIPAA restrictions. HIPAA laws / rules do not extend to ham operators (unless the operator is otherwise covered by HIPAA). One should NOT send personal information over the radio at any time, unless it is your own information that you are sending (remember that ANYONE may be listening). This applies whether you are sending it out by phone (voice), CW (morse code), digital, or any other mode. This applies to personal information such as a person's name along with injury / fatality information for that person. Don't do it (but it's not a HIPAA issue).*
- *I would like to discuss 'multipath' as it relates to ham radio, but we can do that at another time. I don't think there are any test questions on that topic.*

Saturday, September 25, 2021

Video	Textbook	Pages
Digital Communications	Your Computer Goes Ham Digital	119 - 130
Multi-Mode Radio	Multi-Mode Radio Excitement	131 – 138
Interference	Run Some Interference Protection	139 – 152

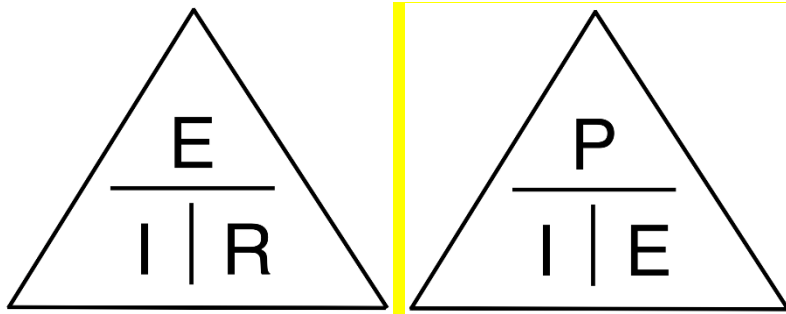
I don't recall if we covered Weak Signal Propagation and/or Talk to Outer Space, but if we did not cover that, then add those topics at the beginning of this week's topics listed above. These two topics can be found in the textbook at pp 93 and 103 respectively.

Saturday, October 2, 2021

Textbook	Pages
Electrons – Go with the Flow	138 – 151
It's the Law, per Mr. OHM!	152 – 158
Picture This!	159 – 170
Antennas	171 – 178
Feed Me with Some Good Coax	179 - 188

There are three schematic diagrams that you may see on the test. You should know the components on all three and be prepared to answer questions about these three schematic diagrams: T1 (p 161); T2 (p 162); T3 (p 160).

The 'magic circles' are also frequently shown as triangles. Use whichever works for you.



I imagine that the rest of the YouTube is similarly structured; however, I will follow up and let you all know.

W5JVJ Larry

09/05/2021

09/16/2021 (updated)

09/24/2021 (updated)

09/25/2021 (updated)