Errata to IRTS HAREC Amateur Radio Station Licence Study Guide

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Page 115 · Section 8.6
Oscillators, Variable Frequency Oscillator, second line

The BFO generates a signal which is mixed with the output of the IF-frequency to produce…

should read: *The BFO generates a signal which is mixed in the receiver's Product Detector with the output of the IF Amplifier to produce…*

Page 145 · Section 11.4.1
Amplitude Modulation, Footnote 175

…the frequency of the modulating signal representing the data sent using WiFi can have MHz or even GHz frequencies to transfer information at hundreds or thousands *of Gbit/s. This is possible even though WiFi carrier frequency is also in the GHz range…*

should read: *…the frequency of the modulating signal representing the data sent using WiFi can have MHz or even GHz frequencies to transfer information at hundreds of Mbit/s or* several tens *of Gbit/s. By using a sufficient radio spectrum bandwidth this is made possible even though WiFi carrier frequency is also in the GHz range…*

Page 152 · Section 11.4.2
Frequency Modulation

Although Figure 11-viii is correct, it does not fully explain FM because the amplitude of the shown modulating signal remains steady. If its amplitude varied from quieter to louder, the deviations of the modulated signal, visible as the spacing of the red trace, would get wider.

Page 159 · Section 11.7
FM (F3E) first line

Figure 11-xv shows a voice transmission on a VHF amateur radio band using FM (F3E).

Should also add: *Only about 10 kHz of the used bandwidth is visible in this waterfall.*

Page 193 · Section 13.3.4
IF Filter, Table 13-A

Row *FM 12.5 kHz*
should read *FM 7.5 – 16 kHz*

Page 229 · Section 15.7
Half-Wave Antenna, second line

It is designed to be used on a specific, narrow range of frequencies, for example, on the 20 m band. However, it can be also operated on the harmonics of that frequency, for example, on 10 m.

should read: *It is designed to be used on a specific, narrow range of frequencies, for example, on the 40 m band. It can be also operated on the harmonics of that fundamental frequency. If centre-fed, its feed point impedance is easier to match on the odd (3rd, 5th, …) harmonics, for example, on 15 m, than on the even ones (2nd, 4th, …) like 20 m, on which it may be impractical to use.*

Page 229 · Section 15.7.1
Voltage, Current, and Impedance on a Half-Wave Antenna, first line

The voltage and the current are different at different points along the antenna.

should read: *When the voltage and the current reach their maximum values, twice in every oscillation, they are different at different points along the antenna.*

Page 234 · Section 15.9
Non-Resonant Wire Antennas, third line

Its impedance is only resistive with no reactance.

should read: *Its impedance is only resistive, with no reactance, if fed in the centre, or anywhere else except close to its ends.*

Page 234 · Footnote 287

The feed point impedance will be close the fundamental.

should read: *The feed point impedance, at the centre, and anywhere else except close to its ends, will be higher, however, its reactance will remain low and easy to match.*

Page 235 · Footnote 290

It is harder on frequencies that are even harmonics (2nd, 4th…) of the fundamental. The antenna is once again resonant, i.e., it has no reactance, however, its purely *resistive impedance is very high, possibly exceeding the design of the ATU or a balun.*

should read: *It is harder on frequencies that are close to the even harmonics (2nd, 4th, …) of the fundamental. The antenna is once again resonant, however, its* mainly *resistive impedance is very high, even infinite, likely exceeding the design of the ATU or a balun, if fed in the centre. However, it may be successfully used with a different feed point location, closer to the ends, or with another matching device.*

Page 276 · Section 17.2
SWR and Power, last paragraph

Because this meter contains diodes, it should be placed before any final low-pass filters to supress harmonics.

should read: *Because this meter provides an SWR reading for the equipment it protects, it should be placed immediately after an amplifier, if one is used, or just after the transceiver, and before any final low-pass filters.*

Page 327 · Section 22.2

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