The G4EGQ RAE course . extra information Lesson 10x

CW /Morse transmissions

The most usually way to send Morse code is to send a carrier but switch it on and off with the Morse key.

CW is sometimes used to be the abbreviation for "Carrier Wave" and sometime for "Continuous Wave".
I find the latter to be a contradiction….how can Morse be sent if the carrier is continuous?

The BR68 gives each mode of transmission a code. An example of this is "A1A". This, in the BR68 is said to represent "Hand sent, on/off keying of the carrier"
This seems to adequately describe what is happening.
When the Morse key is pressed down a carrier (a single frequency) is transmitted.
When the Morse key is released then the carrier is switched off and nothing is transmitted.

This technique is used in simple transmitters.

However some more complex transmitters that are designed for SSB operation often use a different mode for Morse transmission.
Such transmitters may be designed to send a carrier continuously but connect the Morse Key to an audio oscillator. When the Morse Key is pressed the carrier is Amplitude modulated with this audio tone. When the key is released the tone is switched off but the carrier wave continues. A variation of this (uncommon) is to leave the audio tone modulating the carrier all the time and switch the whole modulated signal on and off using the Morse Key.
Where a tone is added (often referred to as a "sub carrier") then this is given the code A2A

In other words A1A uses a keyed RF carrier (a single frequency with out the use of a modulating sub carrier). This signal requires a receiver with a BFO (Beat Frequency Oscillator) to receive it. However an A2A transmission uses a modulating signal which is keyed by a tone or sub-carrier resulting in a double side band amplitude modulated signal. This can be received with an ordinary receiver, with out the need for a BFO.

I hope this helps…..