

MAGNETIC STANDING WAVES (part of the STEAP system)

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Most in the art understand current or voltage standing waves within a transmission line, here I am going to talk about MSW (magnetic standing waves). But magnetic fields do not “move”! Read on and I will try to explain.

One of the main points of standing waves is the damage that takes place when two AC currents from opposite directions collide and sum their current peaks **within a wire**. It maybe thought that a magnetic standing wave is formed by two bucking solenoid coils fed from either end, this is not so, that is akin to a current standing wave.

A “MSW” is created purely by using two opposing magnetic fields as in NN or SS without a direct wire connection at that point of collision of the magnetic fields, that would be just a standing wave within a transmission line if the current was AC.

A MSW is formed by three solenoids, or the like of, which are wound in a trifilar form, and connected to a coil core capacitor (**see paper on the flux capacitor**). Each of the “coils” are fed independently with pulsed DC from opposite ends, with a specific dB/dt's for each solenoid coil. The specific dB/dt for each must not be the same, as in using the same pulse frequency. The frequencies used are in a sequence where they are “**on the move**” all the time. They move because their phases are changing due to current delays within the solenoid coils.



The above shows the result of doing this. Note the 781.2Hz frequency, this is formed by taking 7.8152 as a frequency of interest and multiplying it by 2.1 and 3.2 to obtain two frequencies used in a sequential switching of **3 switches**. The yellow and green traces are the switching, the magenta is the resulting **differential** voltage waveform, note on the left the cursors. The output is a changing amplitude DC, resulting in a changing **amplitude** magnetic wave which **induces current into the coils (changing magnetic field)**. This is DC where the core capacitor is charged with DC and then discharged with DC at a specific dB/dt within the coils.