$$I_{2^\circ} = 5W/50kV = 1*10^{-4}\ A$$

or 0.1 mA. The characteristic frequency of the coil, F_C, as obtained at resonance (when the AC resistance, or reactive impedance, is zero) is a function of the reciprocal of the square root of the product of the inductance by the capacitance of each stage. Hence we have:

$$F_C = [2\pi\ (L_{1^\circ}\ C_{1^\circ})^{0.5}]^{-1} = [2\pi\ (L_{2^\circ}\ C_{2^\circ})^{0.5}]^{-1}$$

For the SF TC, this gives:

$$F_C = \{2\pi\ [(1*10^{-6}\ H)\ (0.025*10^{-6}\ F)]^{0.5}\}^{-1} =$$
$$= \{2\pi\ [(277.77*10^{-6}\ H)\ (90*10^{-12}\ F)]^{0.5}\}^{-1} = 1.0066*10^{6}\ Hz$$

These are classical functions and results. But before proceeding onto the aetherometric functions of Tesla coils, this is a good occasion to demonstrate how inductance is the reciprocal of an electric acceleration [19]. Since, as we already know [2, 20], the unit of capacitance, the farad, is a measure of the total linear distance between reacting charges, such that $1F=1.2705*10^{15}$ m, then, using either example, say that of the primary, the square root of the inductance being equal to-

$$\sqrt{L_{1^\circ}} = (10^{-6}H)^{0.5} = [2\pi\ (0.025*10^{-6}\ F)^{0.5}\ F_C]^{-1}$$

we obtain the inductance as a function of:

$$L_{1^\circ} = 10^{-6}H = [4\pi^2\ (0.025*10^{-6}\ F)\ F_C^2]^{-1} = 10^{-6}\ sec^2\ F^{-1}$$

Thus, it follows that the unit of inductance, the Henry, H, is simply:

$$1H = 1\ sec^2\ F^{-1} = 1\ sec^2/1.2705*10^{15}m =$$
$$= 7.871*10^{-16}\ sec^2\ m^{-1} = (1.2705*10^{15}\ m\ sec^{-2})^{-1}$$

This makes it evident that inductance is indeed the reciprocal of an electric acceleration.

Returning now to our narrative - and specifically to our data - we have seen that oscilloscopically the coil frequency F_C of the Science First coil is not 1 MHz, but 1.538 MHz. But, aetherometrically, this coil frequency is also the result of the superimposition of two distinct frequencies, one relating to its electro-capacitative field (F_A) and the other relating to its magneto-inductive field (F_B). This is made clear by the fact that multiplying the coil capacitance by its inductance is the same as