THE FINAL SECRET OF AQUINO'S SYSTEM G DIAGRAM

In this document, we are going to see, which is the golden key of the Torus Shield and maybe the truth about the System G.

As you have already seen in my FINAL INVESTIGATION, I have created the following equation about the System G (J.X. Equation):

$$m_{g(System\ G)} = 35 Kgr - 2 \cdot 1,96 Kgr \left\{ \sqrt{1 + 2,21 \cdot 10^{-7} \cdot I_{0}^{4}} - 1 \right\} \qquad [1]$$

Aquino's equation in his related paper is the following:

$$m_g = m_a - 2m_a \left\{ \sqrt{1 + 4 \cdot 4 \cdot 10^{-9} \cdot I_o^4} - 1 \right\}$$

And according to my investigation must be re-written as:

$$m_{g(System\ G)} = 35Kgr - 2\cdot 1,96Kgr\left\{\sqrt{1+4,4\cdot 10^{-9}\cdot I_{0}^{4}} - 1\right\}$$
[2]

Now we are going to examine, why the equations [1] and [2] are different and they produce different results and have a common point. The common point is that, they do not have the sharp resonance point, which the weight of System G, becomes suddently 5,80Kgr by Aquino. What was really happened in that moment? The following investigation will answer this question. We know:

$$\left(\frac{U_1}{m_{is}c^2}n_{r1}\right)^2 = 2,21\cdot10^{-7}\cdot I_o^4 \qquad U_1 \text{ and } n_{r1} \text{ are the known parameters of } eq.[1]$$

$$\left(\frac{U_2}{m_{is}c^2}\right)^2 = 4.41\cdot10^{-9} I_o^4 \qquad U_1 \text{ and } n_{r1} \text{ are the known parameters } 0$$

$$\left(\frac{U_2}{m_{is}c^2}n_{r2}\right)^2 = 4.4 \cdot 10^{-9} \cdot I_o^4 \qquad U_2 \text{ and } n_{r2} \text{ are the known parameters of } eq.[2]$$

Dividing the above expressions, we have:

$$\left(\frac{U_1 \cdot n_{r1}}{U_2 \cdot n_{r2}}\right)^2 \simeq 50 \quad but \quad U_1 = U_2 = \eta \frac{I^2_{rms} \cdot R_r}{f \cdot S_{torus}} S_a$$

Then:

$$\left(\frac{n_{r1}}{n_{r2}}\right) \simeq 7,07 \Rightarrow n_{r2} \simeq \frac{n_{r1}}{7,07}$$

Means that Professor Aquino used a smaller value of refraction index or John Xydous (me)is wrong.Let's see.

The only thing that can change the refraction indexes is the Magnetic Permeability and not the conductivity, because the conductivity is a known constant for the solid Iron. So we have the followings:

$$\left(\frac{n_{r1}}{n_{r2}}\right) = \frac{\frac{c}{\sqrt{\frac{4\pi f}{\mu_1 \sigma}}}}{\frac{c}{\sqrt{\frac{4\pi f}{\mu_2 \sigma}}}} = \sqrt{\frac{\mu_1}{\mu_2}} = 7,07 \Rightarrow \mu_2 \simeq \frac{\mu_1}{50}$$

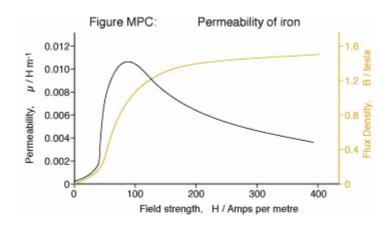
In my equation I used as you know the:

$$\mu_1 = 25000 \mu_o$$

Then:

$$\mu_2 = 500 \mu_o$$

So it is clearly that Aquino used Iron with Relative Magnetic Permeability with value of 500. You do not believe it? Me, too. And why he says that he used Iron with Relative Magnetic Permeability of 25000? But this is the truth and now we come close to the little magic. Aquino really used the above Relative Magnetic Permeability of 500. Now follows a diagram:



The above diagram (Does not represent the values of the System G parameters. More the Aquino's Diagram is very sharp, which points that it is needed a very good annealing process for the Iron Shield.) gives the answer of this puzzle.

As you see is the known B-H Curve Diagram of Iron with the Permeability Graph, too. You can see that the Permeability has an almost same Graph as the Current of an L-C Tank circuit, where the top of the Graph represents the resonance in the L-C circuit, which means a maximum current through the circuit and phase zero between Voltage and Current.

Specifically the above Graph of Permeability shows that there is an Initial Permeability (the 500 of Aquino) and the small currents create Permeability with low values, a little more than the Initial. When the current becomes critical, we have the maximum Magnetic Permeability. Then if we continue to increase the current the Permeability decreases again.

So in the Aquino's Diagram the 130.01A gave the maximum Permeability and the System G, from the almost 35Kgr, suddenly jump to a less weight of 5,80Kgr.After this value of current the Permeability returns to an almost the Initial value, where if we follow the increasing of the current, we will see that it will null the weight of System G, in almost 410A peak (not rms).

So the equation that I wrote and the equation that Aquino wrote, are true only if the Relative Magnetic Permeability of the Shield Iron, do not change with current.

Now the equation of the System G must be re-written as follow:

$$U = 63, 1 \cdot 10^{-23} \cdot I_0^2$$
 Joule

$$m_{is} \cdot c^2 = 83,43 \cdot 10^{-10}$$
 Joule

$$m_g = m_i - 2m_i \left\{ \sqrt{1 + \left(\frac{U}{m_i c^2} n_r\right)^2} - 1 \right\}$$

Then for System G:

$$m_{g(System\ G)} = 35Kgr - 2 \cdot 1,96Kgr \left\{ \sqrt{1 + 5,71 \cdot 10^{-27} \cdot I_{0}^{4} \cdot n_{r}^{2}(\mu_{\chi})} - 1 \right\}$$
 [3]

Where:

 $n_r(\mu_{\gamma}) = n_r(\mu_{\gamma}(I_{\gamma})), \text{ where } \mu_{\gamma} \text{ is the Magnetic}$

Permeability in point x, with Current I_{γ}

Now if we have the points of the function $n_r(\mu_\chi)$, then we can draw exactly the Graph as is in the Paper of Aquino, with the sharp resonance.

COMMENTS ABOUT THE ABOVE DETAIL

So now, for me it is clear that Professor is correct in his paper.

The above B-H diagram is a technical information or not? If it is, then it was given by an Engineer in the University. If you read the paper again of Aquino, does not mention anything about this tiny detail, which is the heart of the problem.

So it is an added evidence, that somebody else, wanted again to delay some progress in the subject, where I do not know the reasons or I am wrong about this conclusion. Having only his papers and no other information, we must think any possible scenario about what happened with this Original Strange Experiment. Maybe his information on the related paper about System G, is for very experienced Engineers or Experimenters and this fact guided him not to put many comments for the steps of the construction.

Now if you look very closely to the Aquino's Diagram on System G (60 Hz experiment), you will see the last experimental point is almost in 300A (not rms) and he stops the data exactly there. This information is a little tricky again.

In my calculations and I think you can confirm it by your own, I found that the Transformer (115mOHM) cannot deliver to the Antenna (115mOHM) current more than 223,4A (not rms).

So this point in 300A (not rms) in Aquino's diagram, does not represent a true point by using his Transformer.

But the point of 300A (not rms) can be a predicted one by his equation. We can see also that the reduced weight in 300A has the smallest value of divergence between the Theoretical and the Experimental data. This point maybe needs more investigation or it is an artificial point.

Let's suppose that the 300A point is the limit of the Transformer, then if you make the calculations, the Transformer must be almost 23500VA and not 11500VA, as Aquino claims.

The fact that he stopped in 300A, it shows that he knew (Practically and mathematically) that his Transformer cannot give any more power. So the only result, which he was excepting to see, is the 130,01A and the reduction of weight in 5,80Kgr by his data.

The 300A point is the last of the diagram and before that there is a point below 250A. The before the last point, is maybe the true limit of the Transformer current.

By the above, Professor Aquino and his co-operators designed the System G, to observe exactly the effect in 130,01A. They had calculated it by the B-H Curve and they were waiting to see what would be happened, when they would reached that point. And I believe again they saw the point 5,80Kgr of reduction of weight of System G.

INFO FOR THE EXPERIMENTERS

I think, there is not anything else to say. If you have the right Iron Powder, then I believe everything will be O.K.

After that the Shield is not to consider any more. Because as we have seen Professor Aquino used a low Relative Magnetic Permeability Iron with value of 500.I am sure that if you have already bought the high purity Iron, you will have at least that value of the Initial Permeability.

Even if the Rel.Mag.Permeability do not reach the 25000, by the diagram of Aquino, the almost 500 Rel.Magn.Perm., can give a reduce of weight in 150A, almost 2,5Kgr below the Initial weight.Again proves the theory of Aquino's.

I think that it will be a critical current which the Permeability, will reach at least ten times the initial.

I wish to all experimenters good work and soon to have the expected results.

Sincerely

John Xydous

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