

# Self-Assisted A Vector Potential Oscillation

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## My Video

I have recently, (July 17, 2011), released a video of an effect that is very significant. A Vector Self Assisted Oscillations in a Transformer type device.

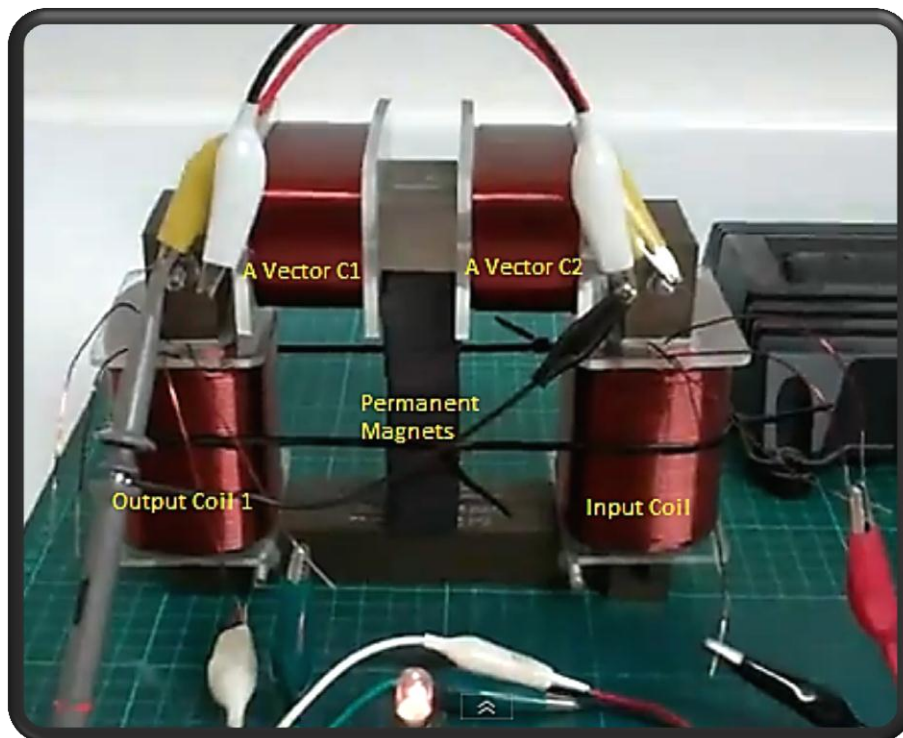
**It's important to note: The device I have shown is below unity.**

The Video: <http://www.youtube.com/watch?v=iJsVSMQqCOM>

In this video I show a set of coils where if I short the Coils, the Output Load is increased at no extra cost to the Input. The input does fluctuate a little, but when correctly tuned the input does not change very much at all. As with the Flux Gate Magnetometer spurious input fluctuations do occur as does this device.

## The Device

Fig 1 – The Device Tested.



First of all this device is a dual path device. One path to the left, and one to the right, of the Permanent Magnets. Much like the Gabriel Kron texts point out in [Ref: 1](#). Also important is the fact that we have two sources of input energy when

the device is in operation. One is the Input we put into the device ( $E = V * I$ ), and two, the Permanent Magnet ( $\nabla \times E = -\partial t^B$ ), which is the source of the A Vector Potential that we will be concentrating on.

**IMPORTANT: These Coils C1 and C2 are NOT Self-Cancelling Coils.** To make these coils self-cancelling each Turn of each coil must be wound in the same space as each other and these coils are not wound this way. C1 and C2 are two completely separate Coils of Wire.

There is no Mutual Inductance between the Input Coil and the A Vector Oscillating Output Coils (C1 and C2) because of the direction of windings on the Coils. For example, one Coil (C1) is Clock Wise and the other Coil (C2) is Counter Clock Wise wound. Our Input Coil must be wound Clock Wise, or Counter Clock Wise and not both. This gives us a separation of Mutual Induction between the Coils. This is important to understand. The Geometry of this device has been considered and I have built this device in this configuration for simplicity. Its geometry can be changed any time as long as the same characteristics are taken into account. For example geometry more like the Vacuum Triode Amplifier would be a better way to achieve this effect but it makes learning this effect much more complicated. I suggest start simple then work your way toward improvements.

Like the MEG, and the VTA of Floyd Sweet, the Current and the Voltage are pretty much in phase. No to minimum (0 - 5%) Phase angles have to be taken into account when measuring this power. A Vector Coils C1 and C2 RMS Voltage can be measured and in dead short mode this point is drawing Maximum Current on each of the coils. This current is, like in transformers and Electric Generators proportional to the Voltage and the DC Resistance of the Coils. The average Frequency I have found best in this particular device is around 200Hz. This will change in different devices with different characteristics. EG: stronger Magnets and so on.

Fig 2 – Sine Wave Traces – Input Coil (Yellow Trace - Ch2) and A Vector Oscillating Coils (Red Trace - Ch1).

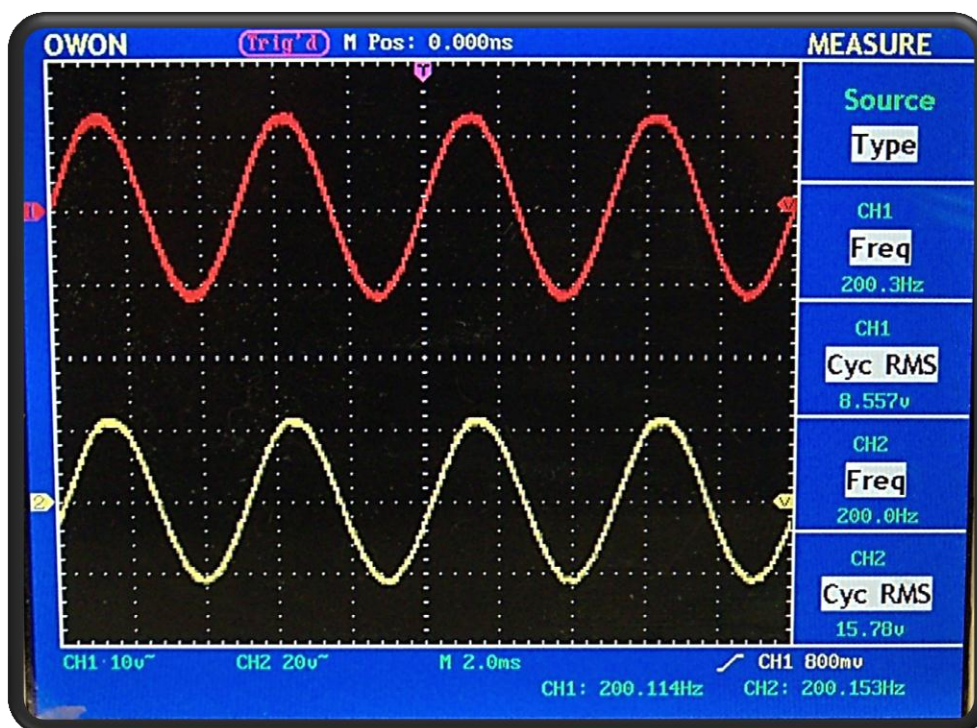


Fig 3 – Sine Wave Traces – Output Coil 1 (Yellow Trace - Ch2) and A Vector Oscillating Coils (Red Trace - Ch1).



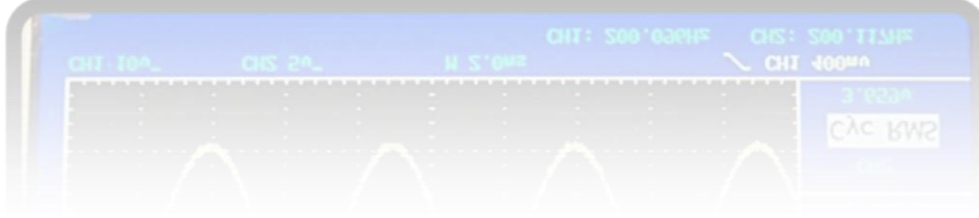
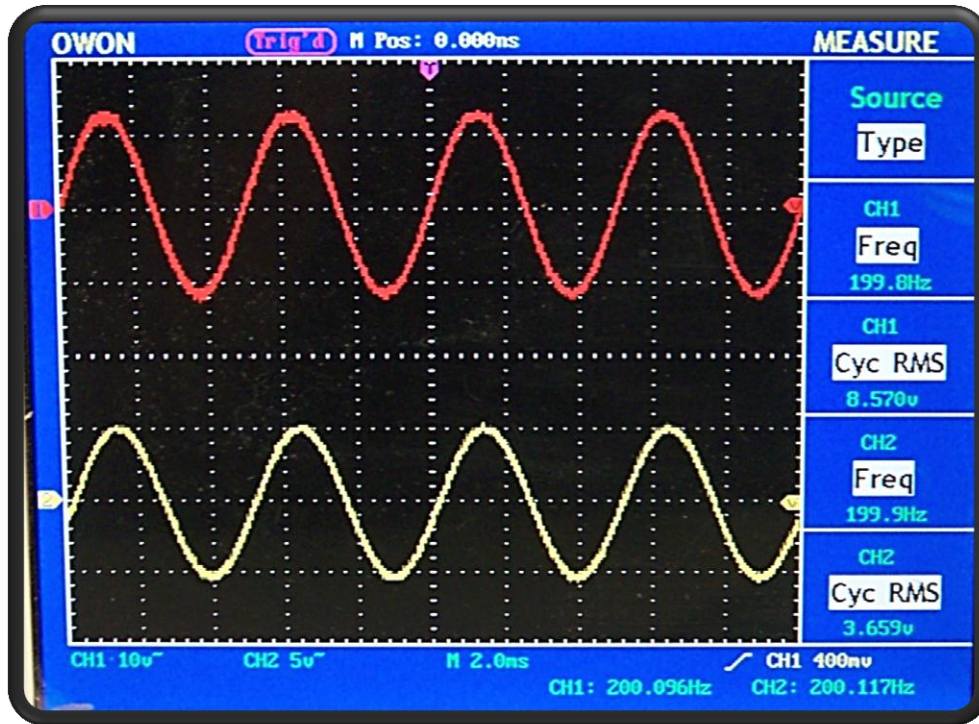
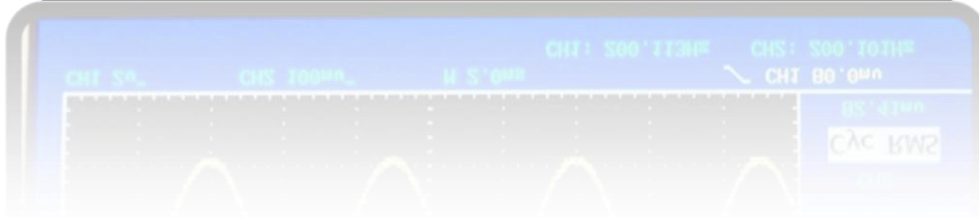
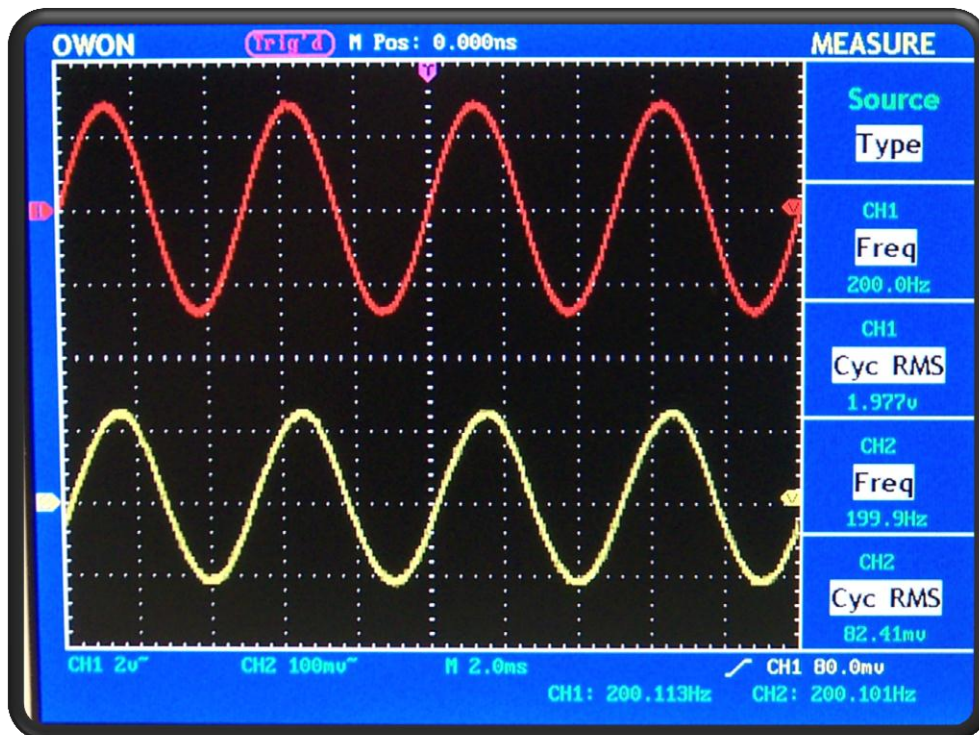


Fig 4 – Sine Wave Traces of A Vector Coils C1 and C2, Voltage: (Red Trace Ch1) and: Current (Yellow Trace Ch2) with an Automotive Globe - 3.6 Watt Load.



This effect is very important. It's the door to achieving above unity Devices.

**Please Note: The device I have shown is not an Over-Unity Device.**

## The A Vector Oscillating Coils

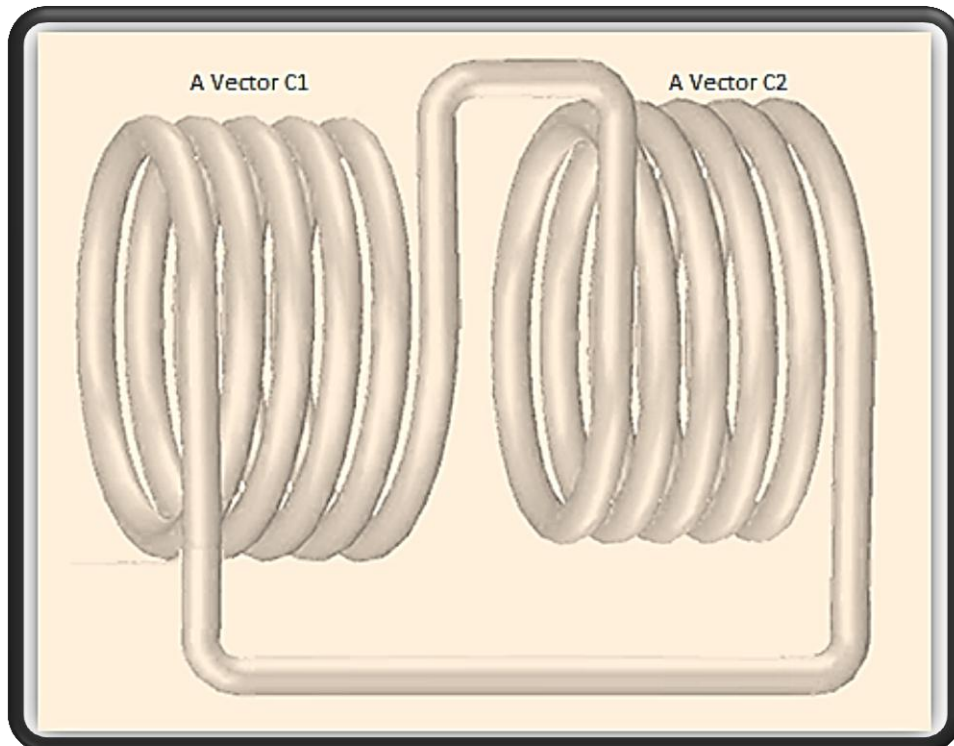
These Coils are very simple:

Fig 5 – A Vector Coils C1 and C2.



Current Findings One Coil wound Clock Wise and the other Coil wound Counter Clock Wise.

Fig 6 – A Vector Coils C1 and C2 – Winding Directions.



**IMPORTANT: These Coils C1 and C2 are NOT Self-Cancelling Coils.**

This is an old technology, known by the greats, Nikola Tesla, Lester Hendershot and many more.

## Current Findings

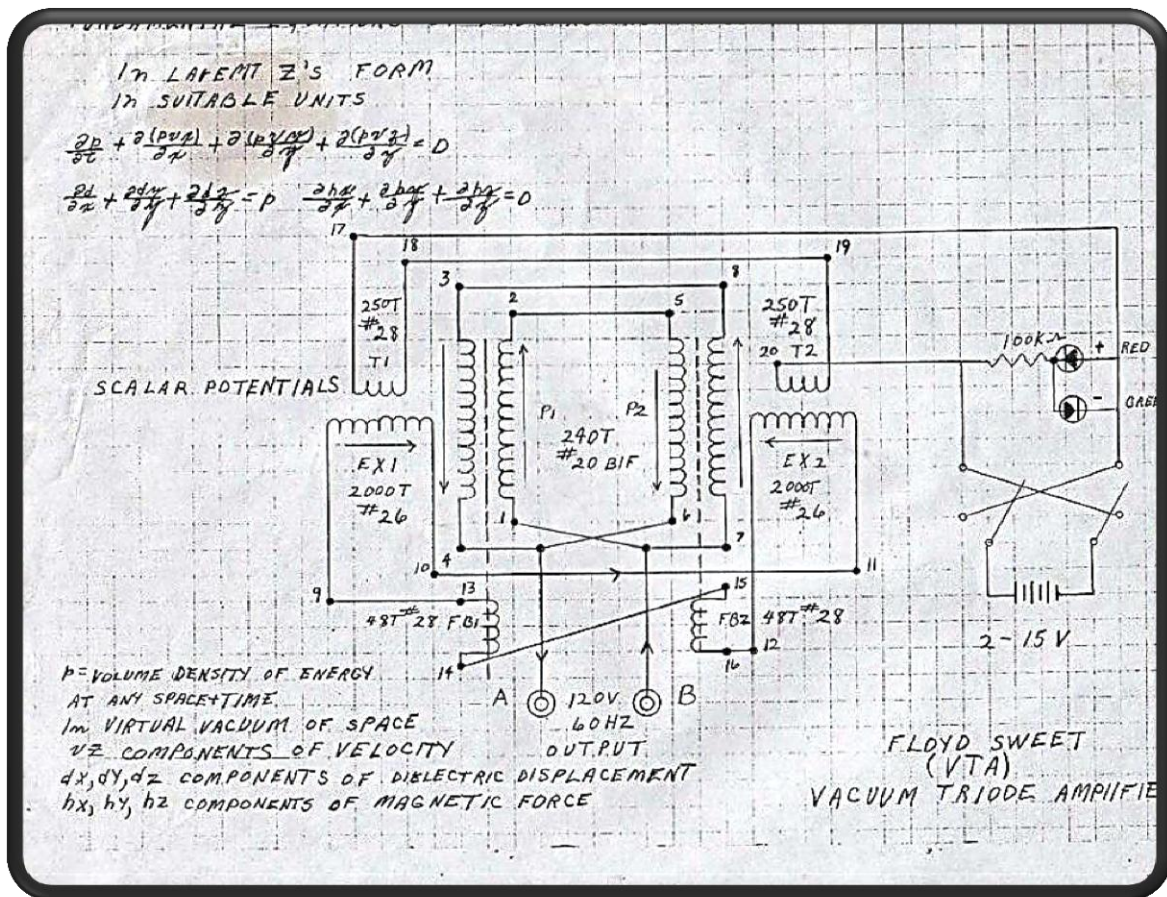
1. A sufficient Load must be connected to Output Coil 1. This induces Lenz Law on the Input Coil, through Mutual inductance between the Input Coil and the Output Coil 1, which increases the Input Current to the Input Coil. This acts as a Bias to the Magnetic Flux and gives more control on the Tuning to achieve this effect. This can be further adjusted by increasing or decreasing the Output Amplitude on the Signal Generator or the Amplifier. The best wave for this effect is a pure sine wave. If the wave is to square the effect is not as readily seen. It is possible, Output Coil 1 and load biasing, can be done away with once correct characteristics are achieved on the Input Coil/s.
2. Input Current must be sufficient to start an Oscillation, as mentioned above. Tuning the Output Amplitude of your Input so not too much current is drawn, or too little current is drawn, is important. We need to start this oscillation and let our A Vector Potential Oscillation Output Coils do the rest of the work. In my device I was only drawing 15.2 watts DC. See [Specifications](#) section for more details.
3. A Load can be placed on the A Vector Coils, C1 and C2, instead of shorting the coils. As long as the RMS Voltage between the Coils is sufficient to run the load, this load can also be run at no cost on the Input power. This Load is independent of the Input Power and the same effect can still be seen. It's important to note, if the RMS Voltage is not sufficient to run the load no effect is seen.
4. The Minimum frequency on this device, that I can see this effect is around 40Hz. The Maximum Frequency is around 340 Hz. Either side of these frequencies this effect dies off and no effect is seen.
5. Currently I have 600 Turns on the Input Coil and also on Output Coil 1, my A Vector Self Assisted Coils are 310 Turns. This is essentially a step down effect on this device. Coils can be modified to get better results by changing the turns and wire gauges to better improve this device.
6. It's necessary to find the starting point, where the A Vector Potential Oscillation starts, this point must be reached as discussed above to see this effect. I also believe there is a maximum where no more A Vector Oscillation can be achieved. I have not yet measured this to confirm this is true or not.
7. Feed Forward and Feed Back A Vector Oscillation Coils (C1 and C2) could be used. Bi Filar Coils have one big advantage over single Filar coils, they "Encourage" Oscillations. By getting the RMS Voltage in the A Vector Oscillating Coils up then a better Feed Forward and Feed Back mechanism can be incorporated into this device. The RMS Voltage I show in my setup is 10V RMS.

In the famous schematic below, we can see the above mentioned idea. This is also a clue from the past that we have been given. If one breaks this schematic down to its most simple parts then one can see further how this can operate. We see arrows have been put into the diagram to represent either the direction of Current flow in the wire or the dynamic direction of the A Vector Potential seen by the wire conductors.

Using a Feed Forward (7 - 8 - 3 - 4) and a Feed Back (1 - 2 - 5 - 6), which depends on the actual phase at the time on observation, due to the Sine Wave's Sin Value changing from Negative to positive. Remembering, it is only possible to wind each Filar of a Bi-Filar coil in one direction at a time.



Fig 7 – Famous VTA Schematic – Authenticity not verified.



## Finding this effect?

I Quote: [Ref: 2](#) "On rare occasions, Sweet saw this effect, called self-oscillation, occur in electric transformers"

I have researched for many years different devices. Two things I believe helped in finding this effect, study of the [Flux Gate Magnetometer](#), and study of the A Vector Potential. I think this has led to finding this effect. The next step is to make a good use of effect and prove or dis-prove whether or not this was the primary principal of operation of the VTA of the late Floyd "Sparky" Sweet.

I have studied Floyd Sweet and the SQM (Space Quanta Modulator) or better known as the VTA (Vacuum Triode Amplifier) for many years. I believe this effect is the start to rediscovering the real secret of the VTA. So far a lot of experimental data fits into place. Looking into the actual known facts will lead us to the truth.

It's interesting to note that I needed 15.2 Watts to get this effect to become visible. Walt Rosenthal said the VTA liked to see 25 Watts. [Ref: 3](#)

As long as the correct winding directions and instructions above are followed you won't miss it. Close study of the coils and what they are doing while keeping an eye on your input will tell you what's going on.

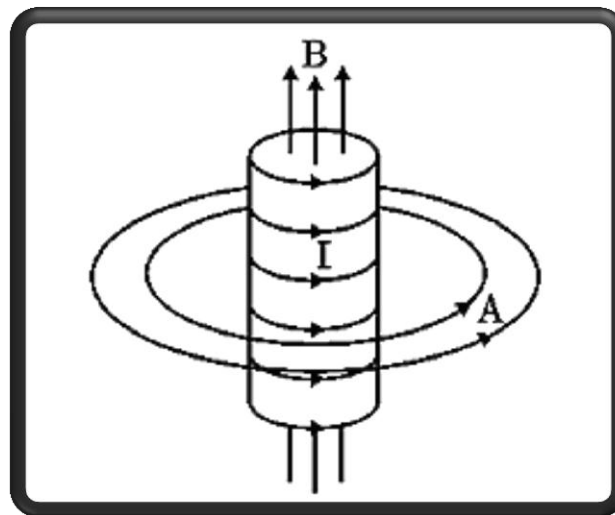
## Did the VTA have a Core?

In all the evidence I have seen, I have to say there is no visual evidence that the VTA had a Core Material, Silicon Steel Laminations or other. If the effect I have shown was used as the primary principal of operation in the VTA then the VTA must have had a core material, likely Silicon Steel Laminations and possibly with large flat Iron Bar's as a top and bottom plate. This is however a speculation. Again if this is the primary principal used in the operation of the VTA it also ties in with the comments made by John Bedini [Ref: 4](#) that the VTA was a Magnetic Amplifier. In my opinion there is a very good probability that the VTA did have a core in the Coils even though Walt Rosenthal said there was no Core: [Ref: 5](#). After all, the E-Field that was mentioned to be the Power House, in the paper "Nothing is Something" is a Potential and the Magnetic Field is the Effect, or the Field Effect. To study the Motionally Induced E-Field as it were mentioned in the above mentioned paper, a removal of the B Field is required as in the Transformer scenario that was given in the paper.

## The A Vector Potential

The A Vector Potential can only be considered an Electric Field if it is dynamically moving. Richard Feynman points this out in his 3 Volumes on Physics. [Ref: 6](#) and [Ref: 7](#)

Fig 8 – The A Vector Potential.



B = Magnetic Field.

I = Interpretation of Current Carrying Solenoid.

A = The A Vector Potential.

Here you can see a diagram of the A Vector Potential. It's elegant and simple. It also works by applying its simplicity as I have proven in my video and the above mentioned writings and pictures.

## Where to from here?

A lot of work is needed from here. We have a very interesting effect that has the possibility of self-powering a device if the correct conditions are met. Gabriel Kron [Ref: 8](#), said that the Generator could be disconnected if the Generator current become zero or negative. To achieve the great feat of engineering and science we need to be smart, we need the very best Transformer theory and a bit of guess work to make the most of what we have found, and then to improve further.

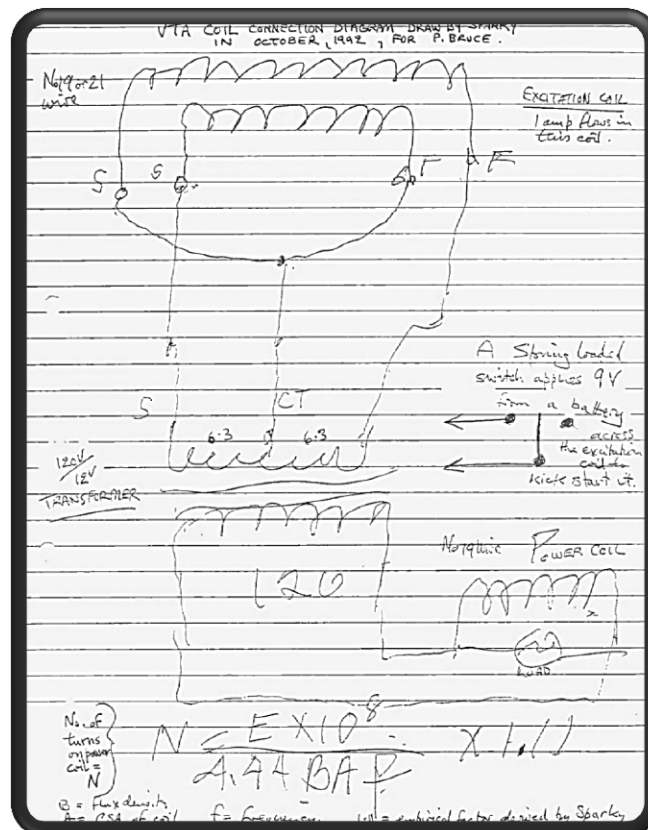
GE and the Germans after World War II, had some amazing technology that we will no doubt never find out about, but we can start to see what they were working on by researching some of the data left behind. John Bedini has again given us another nice piece of information; unfortunately I have not been able to confirm this data anywhere. I believe it to be true however. [Ref: 9](#) talks about the Rotating Amplidyne in the era. I Quote:

*“Now I’m going to say something I should not. Floyd Sweet was privileged to work with the Germans after WW2. He pulled this trick on me with the VTA except I caught him and was booted out he only made it look like he condition the magnets. The Germans already had developed, kept away from the people rotating mag amps and Sweet worked on them. (He was an electromagnetic expert in this field) It was funny to me when I would go over to Sweet’s place with the coils I wound for him and when I would leave it would be working the next day. I asked him to remove the 100 watt power Amplifier and he refused so I left then was asked to never return by Tom Bearden, Tom did not know as I never told him. Tom even brought one over to me to test away from Floyd’s house where it was working before Tom left to have it tested. Floyd went nuts when Tom told him he was testing this at my shop. It did not work. So whatever GE had knowledge of, Floyd knew How, but I can make this machine work either way.”*

By putting lots of little bits of information, that has been confirmed to be true, we can start to put a bigger picture together. Study of simple ideas and experiment of simple devices of the day can also help us to see effects of the VTA that show the same characteristics as we have seen in the VTA. For Example, The VTA’s input power was not mutually coupled to the output power. In other words, the more output drawn was not seen on the input.

One piece of information we need is the correct equation for the Turns on the coils. This device is a sort of Transformer/Magnetic Amplifier like John Bedini said in [Ref: 4](#). It turns out there is a document that has been floating around the internet for many years that may have the answer. Notice the hand writing is the same as in the above Schematic.

Fig 9 – Old Document related to the VTA.





As it turns out the equation:

$$N = \frac{E \times 10^8}{4.44 BAF}$$

Is the correct [Transformer equation](#) for calculating the turns of a Transformer when designing Transformers. Floyd has one more interesting piece of information added to the end of the equation that is not normally a part of this equation:

$$\times 1.11$$

See hiyiq [Calculators page](#) for more information. This above mentioned document can be downloaded in its original form by [Clicking Here](#). It's possible this is a clue from the past that Floyd has left us.

## My Specifications

Input Coil	Output Coil 1	A Vector C1	A Vector C2	Permanent Magnets	Core	Load
600 Turns 0.8mm Bifilar	600 Turns 0.8mm Bifilar	310 Turns 1mm Single Filar	310 Turns 1mm Single Filar	10 - 38mm X 24mm X 10mm Ferrite Magnets	Transformer "I" Laminations 11SqCm CSA	12v 300ma Automotive lamp

**Please Note:** The Bi Filar Coils mentioned above are not significant at this point of this experiment. One Filar on each coil is not connected. This device will work fine with single Filar coils. What works for my device may not necessarily work for your device.

## Appendix

Ref: 1 - Gabriel Kron:	<p><i>"...the missing concept of "open-paths" (the dual of "closed-paths") was discovered, in which currents could be made to flow in branches that lie between any set of two nodes. (Previously — following Maxwell — engineers tied all of their open-paths to a single datum point, the 'ground'). That discovery of open-paths established a second rectangular transformation matrix... which created 'lamellar' currents..."</i></p> <p><i>"A network with the simultaneous presence of both closed and open paths was the answer to the author's years-long search."</i></p> <p><a href="http://www.cheniere.org/misc/kron.htm">http://www.cheniere.org/misc/kron.htm</a></p>
Ref: 2 – Jeane Manning:	<p><i>"On rare occasions, Sweet saw this effect, called self-oscillation, occur in electric transformers"</i></p> <p><a href="http://merlib.org/node/5282">http://merlib.org/node/5282</a></p>
Ref: 3 – Walter Rosenthal:	<p><i>"The VTA "likes" to always see a minimum load of 25 watts."</i></p> <p><a href="#">Google Search</a></p>

Ref: 4 – John Bedini:

*“That is why nobody can make it, Sweet device also Magnetic Amplifier.”*

[Google Search](#)

Ref: 5 – Walter Rosenthal:

*“The Vacuum Triode Amplifier (VTA) invented by Floyd Sweet consists of two ferrite magnets and two to four coreless wire coils.”*

[Google Search](#)

Ref: 6 – Richard Feynman:

*“What happens when the Field is changing is, nothing to do with the field B, its due to the existence of an Electric Field E, which has nothing to do weather the wire was there or not. When a Magnetic, if you have a region of space in which a Magnetic Field is changing there is an electric Field generated even though there may be no wire.”*

Feynman 3 Volumes on Physics - VOL 2 - Audio Lecture 16 - Induced Currents.

Ref: 7 – Richard Feynman:

*“As a consequence we can say, that the Vector potential is like a potential for the current, and that’s as near as I can get, to an interpretation in Classical Physics, of the Vector Potential. It is not a satisfactory definition, because it turns out it doesn’t hold in a more general case when things are changing with time. Incidentally that brings me to another subject; we are getting perilously close to having to consider what happens when things change in time.”*

Feynman 3 Volumes on Physics - VOL 2 - Audio Lecture 15 - Vector Potential.

Ref: 8 – Gabriel Kron:

*“When the generator current is positive the circuit draws energy from the source, and when the current is negative the circuit pumps back energy into the source. At zero generator current the circuit neither gives nor takes energy, and theoretically the generator may be removed.”*

Ref: 9 – John Bedini:

*“Now I’m going to say something I should not. Floyd Sweet was privileged to work with the Germans after WW2. He pulled this trick on me with the VTA except I caught him and was booted out he only made it look like he condition the magnets. The Germans already had developed, kept away from the people rotating mag amps and Sweet worked on them. ( He was an electromagnetic expert in this field) It was funny to me when I would go over to Sweet’s place with the coils I wound for him and when I would leave it would be working the next day. I asked him to remove the 100 watt power Amplifier and he refused so I left then was asked to never return by Tom Bearden, Tom did not know as I never told him. Tom even brought one over to me to test away from Floyd’s house where it was working before Tom left to have it tested. Floyd went nuts when Tom told him he was testing this at my shop. It did not work. So whatever GE had knowledge of, Floyd knew How, but I can make this machine work either way.”*

[Google Search](#)