

Floyd Sweet's Space Quanta Modulator

by Chris Sykes – hyiq.org

Some facts are known about the Space Quanta Modulator or better known as Floyd Sweet's VTA (Vacuum Triode Amplifier). The VTA has been hidden behind a myriad of lies and deception with one story varying from the other and sometimes varying considerably between the involved parties. This makes the study of a device like this nearly impossible if one were to go on the stories told by those individuals alone.

Weather those parties were knowingly telling Miss-Truths is unlikely. If they did, it was possibly to protect their loved ones.

The VTA, of Floyd "Sparky" Sweet has been, for the last 100+ years, without a doubt, the best known and best documented Free Energy Machine to this day. Thanks to the advent of Video Footage and detective work a great deal of information can be compiled.

Permanent Magnet "Conditioning"

Lets discuss Permanent Magnet Conditioning, where the Field of the Permanent Magnet is continuously waving and doing work. This is the free, no input Permanent Magnet "Conditioning" talked about in the original reports of the VTA.

It is very likely that "Permanent Magnet Conditioning" is False. Floyd did NOT condition his Permanent Magnets to make the VTA work, as mentioned above. It is simply not true at all. For anyone that still believes that Permanent Magnet "Conditioning" was the Achilles Heal of this device, you should stop reading this paper now and go back to what you were doing.... These people will not have studied the facts closely enough to see through the mist of lies and deception to see the truth even if it did lie right before their eyes. For the Sceptics, lets really think hard about this, think of the Permanent Magnets Flux and the Flux paths.

If Permanent Magnet Conditioning were true (imagine just for a minute), the only possible movements of Magnetic flux will be 90 degrees to the originating axis, this will only hinder their very movement's and the movement's would stop entirely due to the forces involved. EG: Breaking of the Field Lines between the two Permanent Magnets. Remember these are opposing poles (North facing South in attraction mode) and the Permanent Magnets Flux from each Permanent Magnet must move in opposite directions.

There is no evidence they were magically "Conditioned". In-Fact, the opposite is true, there is more evidence that the Permanent Magnets were not "Conditioned" in the above mentioned way at all. It

is very easy to destroy the field of a Permanent Magnet if the Magnetic Field B is banged around by Capacitor Pulses.

Experiment, take two magnets, North and South Poles facing, and hold them 2 inches apart. Roll one magnet to the left (90 Degrees from the originating axis) as if there is a hinge in the middle of the Magnet and then do the same with the other magnet, but in the opposite direction (opposed 90 Degrees) so the flux has separated. Notice the big forces involved in separating these Magnets even at this distance. For the Permanent Magnets Flux to be moving freely in this configuration is absurd and impossible. The Flux Attraction is far too strong for this to happen in this configuration.

Capacitive Discharges in close proximity to a Permanent Magnet.

We know Floyd did look at changing the Field of a Permanent Magnet, there is strong evidence for this everywhere we look. This may or may not have been to set the Permanent Magnets of the VTA in any sort of state. This could be an entirely separate side project of Floyds and nothing to do with the VTA. To Discharge a Capacitive Pulse into a low resistance coil can, and does, modify the Magnetic field if the pulse is strong enough. This is well known.

A strong possibility is, if Floyd did use Capacitive pulses in the "Building" of the VTA, then it was likely to knock the field off centre. To shift the "Equator" or Bloch Wall of the Permanent Magnet so it was off set to the Permanent Magnet by a degree off 0 Degrees.

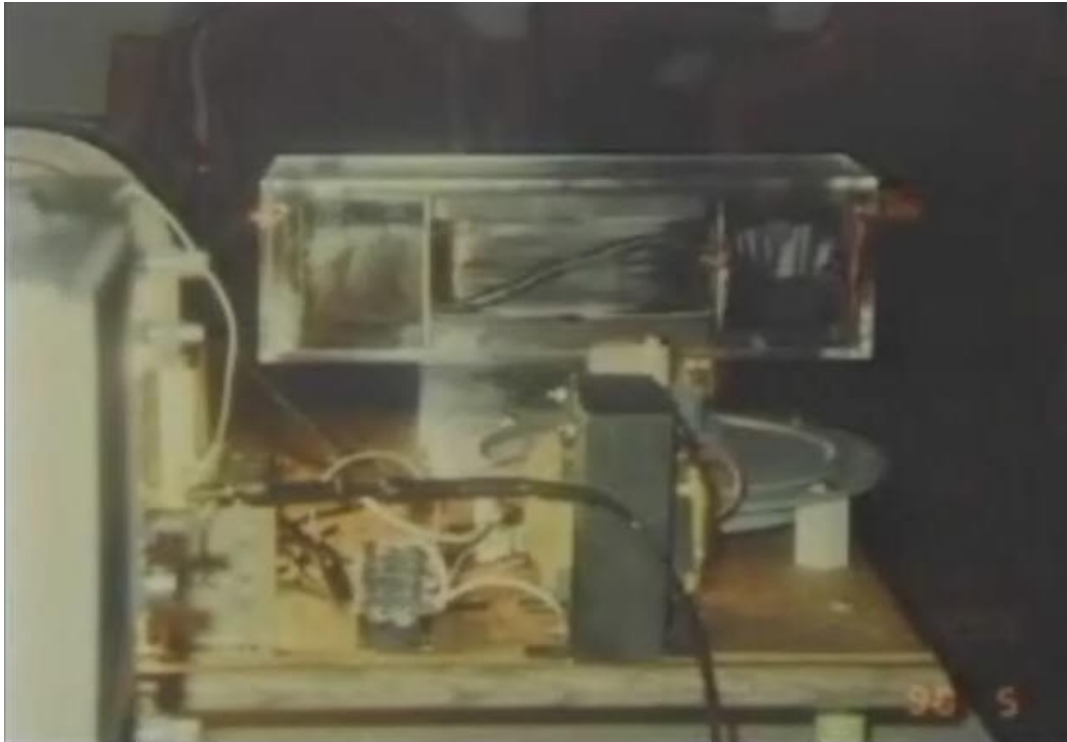
If the Flux Sweeping Principal was used and not the Flux Shifting Principal then this procedure would make sense. If Magnetic Flux were to sweep across the Coils in between the Permanent Magnets then the sweep must come from an angle other than 0 Degrees. This is quite a good possibility in the later Geometry's of the VTA progression as the coils at 90 Degrees would aid in the movement of the Flux.

It is important to note: If the Flux Sweeping principal was used then there is supporting evidence that no Core Material was used, supporting Walter Rosenthal's comments below.

Known and Provable Facts:

1. Number One and most important, the Geometry.

Fig 1 – Known Geometry of the VTA.



The geometry is clearly seen here. If the Permanent Magnets Flux were moving, there would be no on or off, it would always be ON. Only a hard Switch could turn the VTA on or off. The Geometry is linked to the Schematic in Fig 2. The authenticity of this schematic has not been validated. All sources deny its validity. Walter Rosenthal released the second Schematic in Fig 3 that closely resembles Fig 2.

Fig 2 – Possible Schematic.

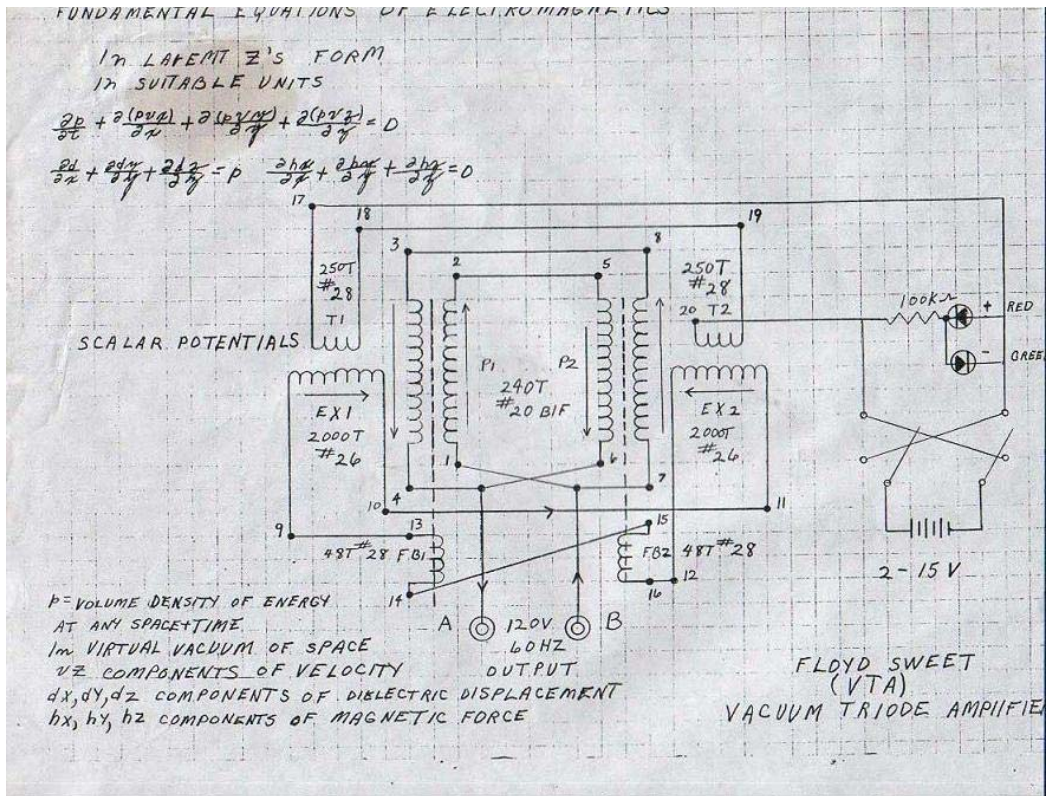
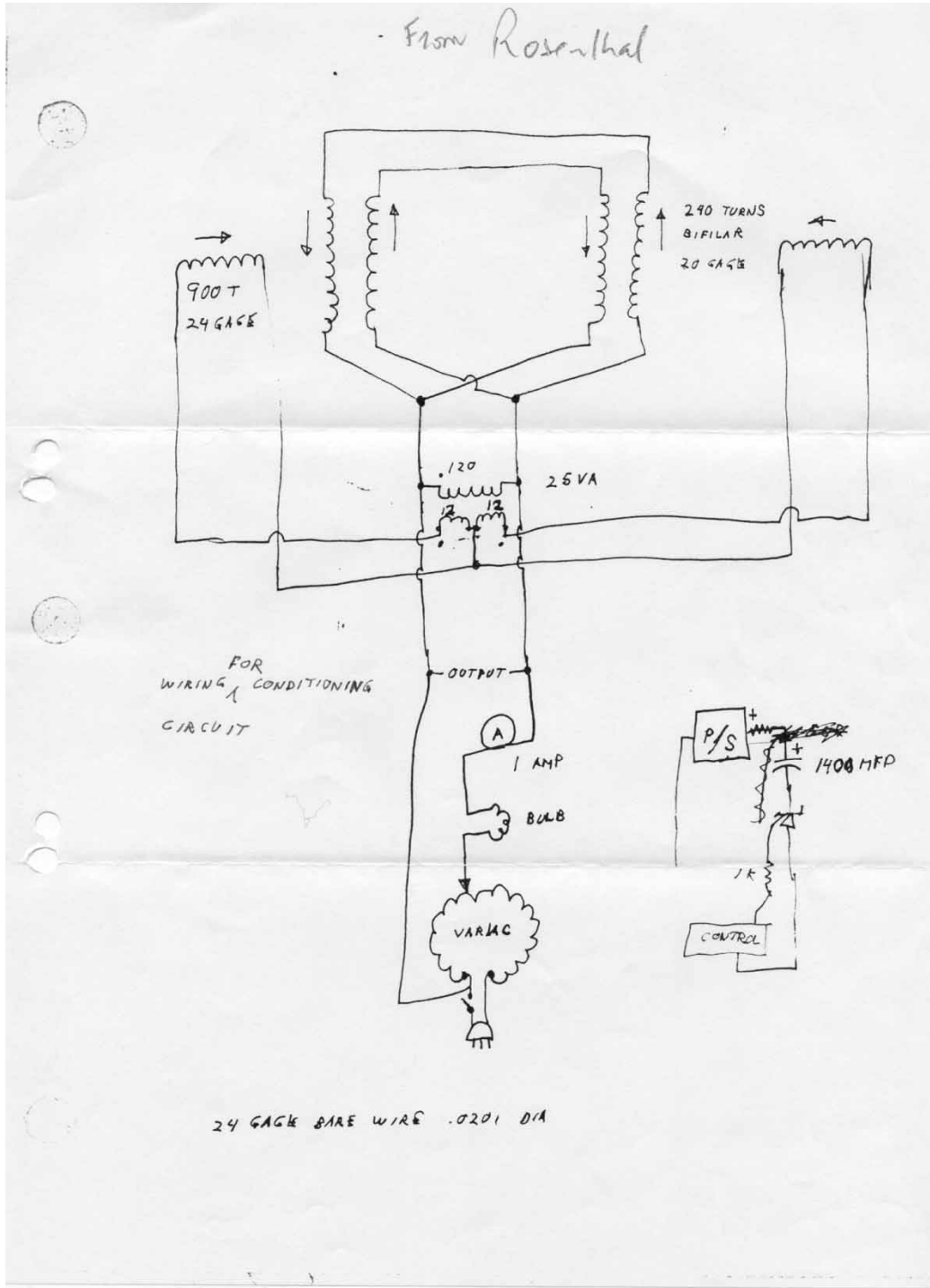


Fig 3 – Schematic by Walter Rosenthal.



2. The Fact that Floyd was able to start the VTA with only a flick of the switch by the HP 201 CR Oscillator is important. The R (in HP 201CR) stands for Rack Mount. 201C came in two models, Standalone and Rack Mount. The Oscillator, when switched on, could only have delivered, three Watts, possibly a bit more in the on pulse, maybe up to five Watts. This is important to keep in mind when looking into all the facts. It is also supportive of starting the VTA with a Battery. (This is speculation listed in the speculation section). The Following Picture is of the HP 201C but is not the Rack Mount Version. (Please note, these models are the same except for the enclosure.)

Fig 4 – The HP 201 C Oscillator:



3. In the Video, Floyd Sweet's Secrets, published and for Sale on the Tom Bearden Web Site, it is seen that the VTA was started and was running at 62Hz. A few seconds later, and after the camera panned and a shadow was seen in the back ground, the VTA was then running at 60Hz. This supports the speculation that the VTA could be run at 60 or 400Hz.
4. Floyd had at least five versions of the VTA before he died on July 5th, 1995 at age of 83 years old, of a heart attack. Here I list the Versions that I know of in the order I believe they were built.

Fig 5 – Early 6 Watt VTA. (Notice the Sponge under the VTA which must have been a noise Dampening Sponge). The Wave Generator is a Square Wave Generator. Model HP 211A.

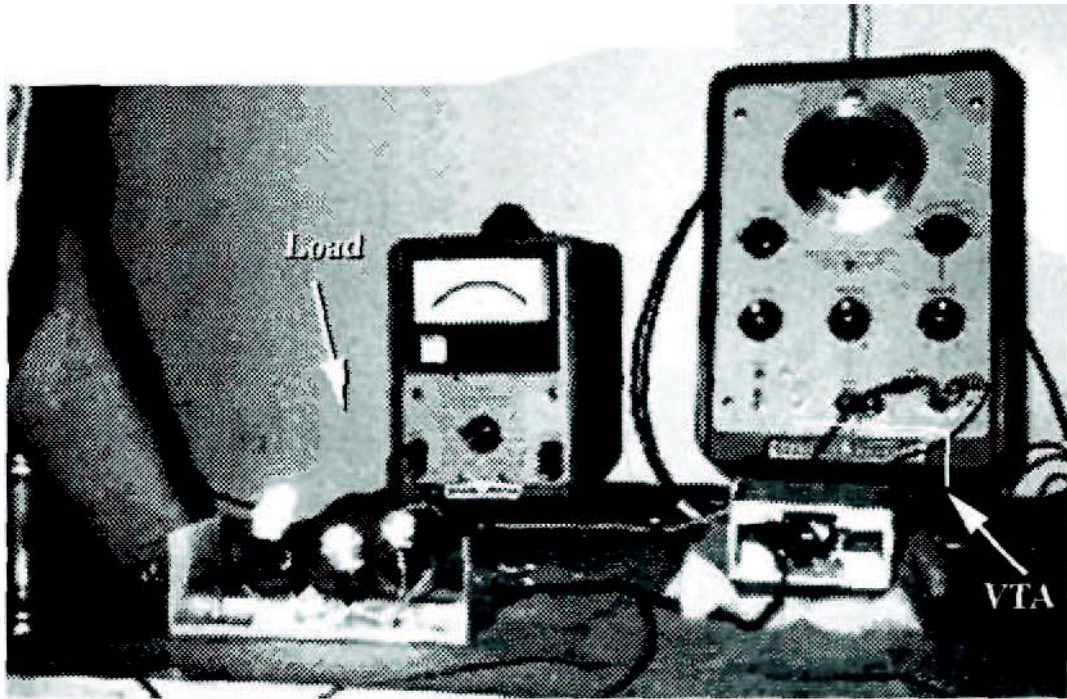


Fig 6 – Generation 2 (500 Watt - Fairly Well documented version)



Fig 7 – Generation 3 (Battery can be seen here indicating that a Battery may have been used to start the VTA).

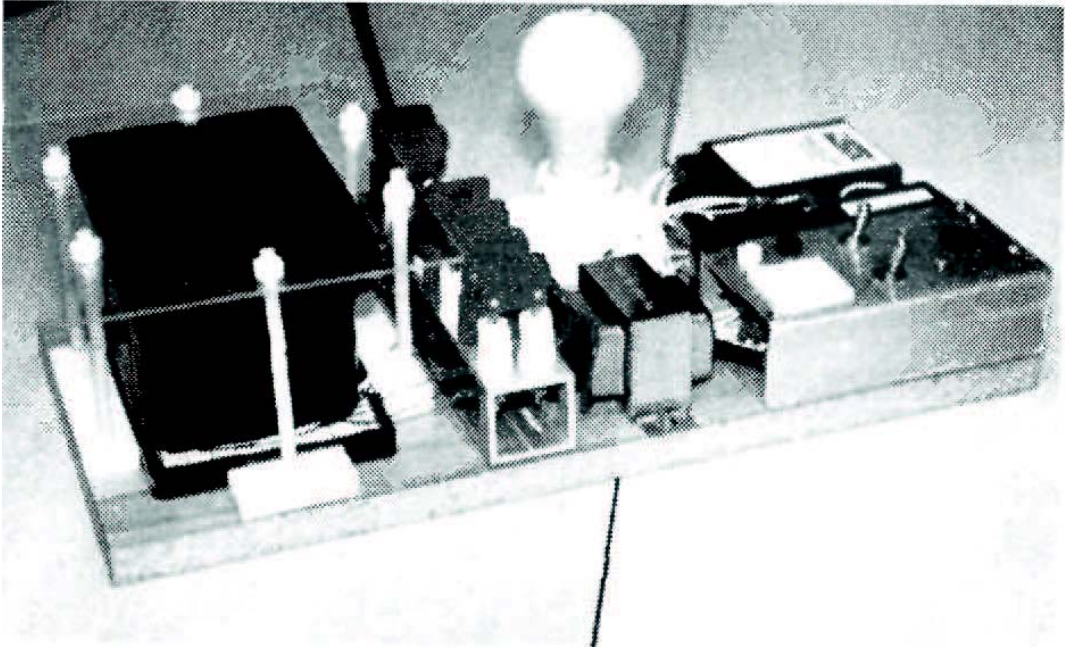


Fig 8 – Generation 4 (Likely to be one of the Self Powered Versions – Possibly 1000 Watt)

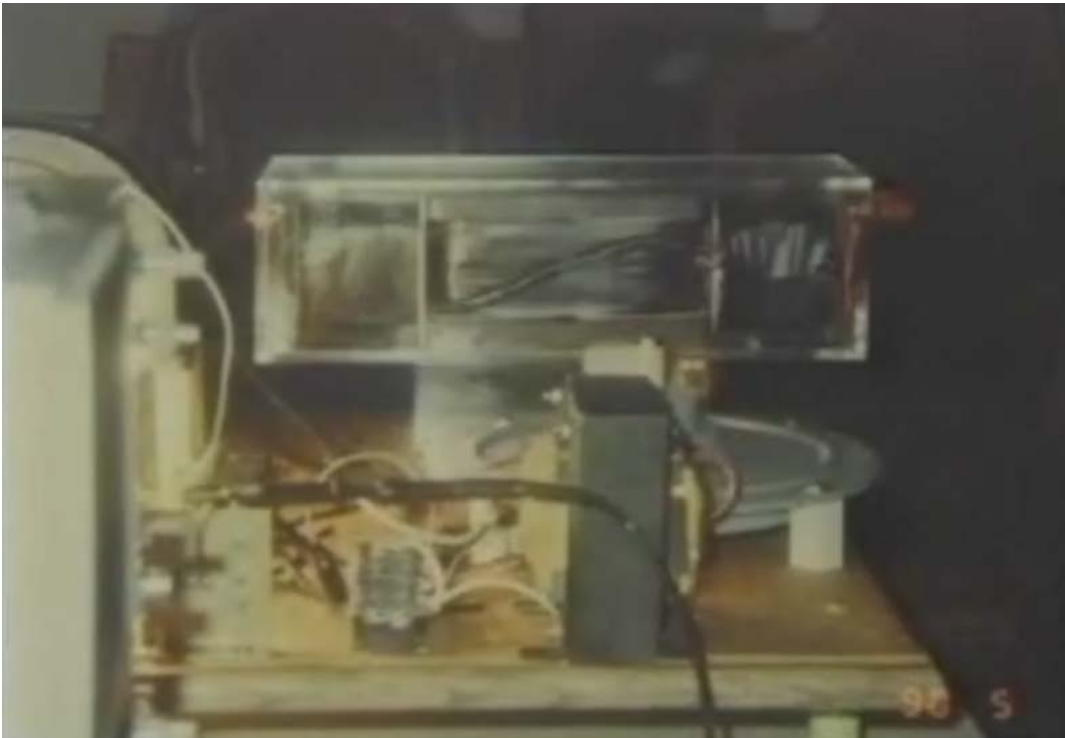


Fig 9 – Generation 5 (Likely to be one of the Self Powered Versions – Possibly 5000 Watt)



Seen clearly in the last several versions is the basic geometry. Floyd stuck with this geometry in the later versions of the device. It can only be speculated in the early devices that the geometry was the same or similar.

5. Permanent Magnets were used in the Device. In all versions except Generation 1, the 6 Watt Model, Floyd had permanent Magnets one top and one on the bottom. It has been written in several places that the Permanent Magnets were Barium Ferrite, with the dimensions of 4" x 6" x 1". In many cases the Magnets did look to be bigger in length and width but thinner. I could go as far to say more like 6" x 8" x 1/2". In the Above Picture, where a ruler is sitting beside the VTA, if the ruler was a 30cm ruler then the Magnet would be approximately 200mm long. It's hard to say for sure though. We just know the Magnets were used.
6. We know the approximate dimensions and shape of the structure. This part is obvious but also important.
7. We know there were Wires coming from the device. In many cases there were more Wires than one would generally expect however.

Fig 10 - Wires from the VTA.



One may expect two or even four Wires coming out of a Device like this but there appears to be up to seven wires coming out of the device here in this picture. Why so many?

8. I believe this is also very important, there must have been some sort of Magnetic Flux Movement. Floyd talks about the “Motionally Induced E-Field” in his paper, “Nothing Is Something”. It took me a long time to work out what the Motionally Induced E-Field was and how it was so different from conventional understanding of what was really happening. It turns out it is very simple. A transformer has a motional E-Field with the varying (Increasing and Decreasing Magnetic Field of the Primary winding) the Toroidal Transformer has the same Motional E-Field, this is pointed out in the above mentioned Paper also. Any Magnetic Field B that moves with respect to time has an associated E-Field, or a better way to put this is that a Moving B Field, creates an E-Field. The following link explains this very well.

<http://www.hyi.org/Library/Downloads/George I. Cohn - Electromagnetic Induction.pdf>

The best way to see these effects in operation is in the Flux Gate Magnetometer. We induce a movement in the External Magnetic Field B , the movement of this field gives us an Electrical output associated with the strength of this field. The Flux Gate Magnetometer has been around for over a hundred Years. The standard Flux Gate Magnetometer is not an over unity machine. It is uncanny that the VTA and Flux Gate Compass have a lot in common.

9. The output from the VTA was a sine wave, 60 Hz and at 120vrms.

Reasonable Speculations.

VTA Speculations could go on for a long time, just the best ones will be discussed here. Speculations that can be tied back to some hard evidence like the evidence above.

1. I believe one of the most important speculations is the one by Walt Rosenthal: "The VTA "likes" to always see a minimum load of 25 watts." Let's ask ourselves why this would be, but first let's see speculation 2.
2. Also from Walt Rosenthal: "The VTA can be started by momentary connection of a 9 volt battery to the drive coils when the machine is operated in the self-powered mode. The operation is stopped by momentary interruption of power to the power coils." This helps us understand why speculation one may be so important.
3. It is well known that Floyd Sweet was a Transformer Expert. "Sweet saw this effect, called self-oscillation, occur in electric transformers". Ok, he saw this effect happen? This sounds like a very interesting effect and one that would be very beneficial to know about.
4. Output from the VTA was Negative Energy and positive energy mixed. In Tom Bearden's report, he says you can't have Negative and Positive Energy running on the same transmission line as they cancel each other out. In Walt Rosenthal's report he says it was a mix. Only Experiment can prove or disprove this.
5. Flux Movement in the desired configuration. We know we have something that is not in the standard range of Faradays set of equations. So how and what needs to be done to get this effect. Very little is known about this phenomena but we do know others have done it before also. Lester J Hendershot is the best example of Geometry and output with the similar types of situations being met.

We can speculate here that the B Field may be moving in one of two ways. Either like Hendershot did, a type of self oscillating transformer effect, EG: Floyd was moving Flux in a Core material thus the Motionally Induced E-Field via Flux Shifting, or there was Flux Sweeping effect across the coils which will also see the same Motionally Induced E-Field.

We can try experiments to see what does seem to give us the best effects.

1: Take a coil, no core, around 200 turns, now tie the ends together and short the coil entirely, take a big Neo Magnet and sweep the Magnet Past the stationary coil, insuring you are still holding both Permanent Magnet and the Shorted Coil. You can feel a very strong effect when the voltage is turned to current and the coil is imposed by Lenz's Law. The coil generates a Field in opposition to the Permanent Magnets Flux Moving past the Coil.

2: Build yourself a very simple Flux Gate Magnetometer and test this. This is a transforming effect on the permanent Magnets Flux. We can see there does seem to be more energy there than Faradays Law predicts in most cases. Information can be found on my website for this device. This device uses the BH Hysteresis curve to enable an output.

Was it Magic?

Floyd Sweet was a very bright man. He was not a magician, he was not pulling a slight of hand. Floyd Sparky Sweet did have a Magnetic Device that produced Electricity like many other devices before him. This device is not at all a one of a kind, its not the only device ever to give an output in a similar geometry and with the same basic concepts involved. The VTA was not a magical device that is way beyond the power of the average mind to comprehend.

Are There Other Devices Like The VTA?

Yes. Yes there are. There is not just one there are many:

1. Daniel McFarland Cook – Improvement in Induction Coils. US Patent – 119,825
2. Lester Hendershot – Fuelless Generator. (This is the most similar device to the VTA I can find)
3. Edd Leedskalnin's Perpetual Motion Holder.
4. Even Tom Bearden's MEG resembles the VTA's geometry in some ways.

Even though these machines are similar to the VTA, this does depend on the facts about the core material.

The Mysterious Force at Right Angles to B and V.

In the "Nothing is Something" Paper, it is mentioned about this Force at right angles to both B and V. Here is the Quote:

"The true phenomenon taking place has little been thought of as involving the production of a spatially distributed electric field. We can see that the model's origins likely arose from the operation called "flux cutting", a most deceiving and misleading term. A better term, "time varying flux modulation", does not imply any separation of lines of flux. Truly, lines of flux are always in closure upon themselves and are mathematically expressed as line integrals. It is fallacious to use the term "cutting", which implies time varying separation which does not in fact ever occur. A motionally induced E-field is actually created within the space occupied by the moving magnetic flux described above. This field is present therein, whether or not a conductor is present in the space. In terms of a definition we can say that, when magnetic flux of vector intensity B moved across a region of space with vector velocity V, electromagnetically induced electric field vector $B \times V$ appears in the space at right angles to both B and V.

Therefore, $E = B \times V$.

It is this field that is related to gravity, it is virtually unshieldable. This field may be called the Motional E-field."

We know that if Magnetic Flux is passed perpendicular to a conductor that an EMF is induced in the conductor. Experiment has shown this to be true. In-fact the closer to a right angle the Magnetic Flux is, to the conductor the better the effect. I have shown an experiment about this and the results speak for themselves. So mysterious? maybe not. This means that there is a type of induction going on, its a standard theory of movement of Magnetic Flux past a stationary Conductor. All in all this is still a confusing and deceiving situation for the VTA until we know more about the actual internal workings.

Messages from the Wise.

John Bedini, we all know, worked very closely with Floyd Sweet. John has said very little over the years about the technical aspect of working with Floyd Sweet. Although he has said very little, what he has said has been very good and also be verified in other areas. John is considered by many as the planets guru on Free Energy today. John has said three statements that need to be taken into account very seriously:

1. "I worked with Floyd Sweet in the early days before Bearden and Walt R came along, I gave him old TV sets to watch the cycloids on for his first machine. I know what I have seen because I wound the coils for his box. Kron sent Sweet to get a masters in mathematics at GE. Sweet was a real electromagnetic engineer, by the book he knew Kron's math backwards and forwards. He threw the book at me a few times. Bearden presented him with the Vacuum Triode analogy and the math for it. I also knew the process of his box, there were no magnetic bubbles, no magic magnets, and no special conditioners that will make the box work, but there was a special process of which Sweet's own son did not know, he was an EE and could not understand how it worked. I know because I was there helping him at night. My old boss gave him the test equipment to use. Walt R built the circuits for Sweet but I don't think Floyd Sweet told him the process. That's why I put the negative resistance papers here. The only problem is the box was unstable under certain conditions, shock, shorts, and other things. He kicked me out when I showed him the monopole and the G- Field charging batteries with no real current. I was to close to making it work every time. I was told later he thought I was going to build his box. I kept that secret and studied negative effects in semiconductor lattice with inductive loads instead only because I was trained in semiconductors at TRW right out of school. I found what I was looking for, and I hope you do too."
2. "That is why nobody can make it, Sweet device also Magnetic Amplifier."
3. "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.”

I believe John was taking a bit of a risk talking about the VTA like this, I am sure if anyone has been visited by the MIB's it would have been John. It only deepens my respect for John knowing that he really is trying to get the truth out there. These three statements above I believe very important in the quest for truth and for anyone to have a real chance of rebuilding the VTA.

Flux Sweeping Principal vs. Flux Shifting Principal.

These principals are very different principals. Both work on totally different principals, thus the name difference. Flux Shifting works on a Core Material and uses the hysteresis curve for its output. Flux Sweeping works on Magnetic Flux Sweeping past a conductor, (Experiment proves Right Angles is Best), generally this is best from 0 degree's to at least 90 degrees for best results.

Both Flux Sweeping and Flux Shifting are good candidates. Flux Sweeping is a better candidate for some reasons and Flux Shifting is a better candidate for other reasons. In Fig 1. there is no visual evidence for a Core Material in the Power Coils. There is visual evidence that the Side Coils may have had Cores in the coils. This is the big question at the moment, to Core the Coils or not to Core the Coils?

Bad joke, that's enough of that now. Lets visualise, and say for a minute the construction of the VTA had Permanent Magnets with the Flux knocked off axis by say 45 degrees in each Permanent Magnet. So one Field points toward the East and the other field points toward the west. We bring the Magnets together, two inches apart, the attraction of the fields will align the flux to a good degree, bending the Flux back to a 0 Degree state.

We now introduce our coils, "Power" and side "Drive" coils. They are wired in such a way, that the coils actually drive the flux, both weather they are "Power" or "Drive" coils, each set of Coils working in unison. The more power generated, the more the coils keep the Flux Moving. The Coils actually make the Flux Move. Now that's a concept, with simple feed forward and feed backs in a bunch of coils.

Ok, it is also possible that this is the way it works the other way, with the Flux Shifting method.

The Lost Technology of Magnetic Amplifiers.

Magnetic Amplifiers are very much a technology that should have been much more dominant in history and should be more popular today. There is much to Magnetic Amplifiers. Magnetic Amplifiers and Saturable Reactors are very similar and often people use the names meaning the

same devices. They can be different devices however. Saturable reactors are very similar to Magnetic Amplifiers but generally Magnetic Amplifiers incorporate one or more rectifier(s) in the circuit. Other than a rectifier, they are basically the same devices.

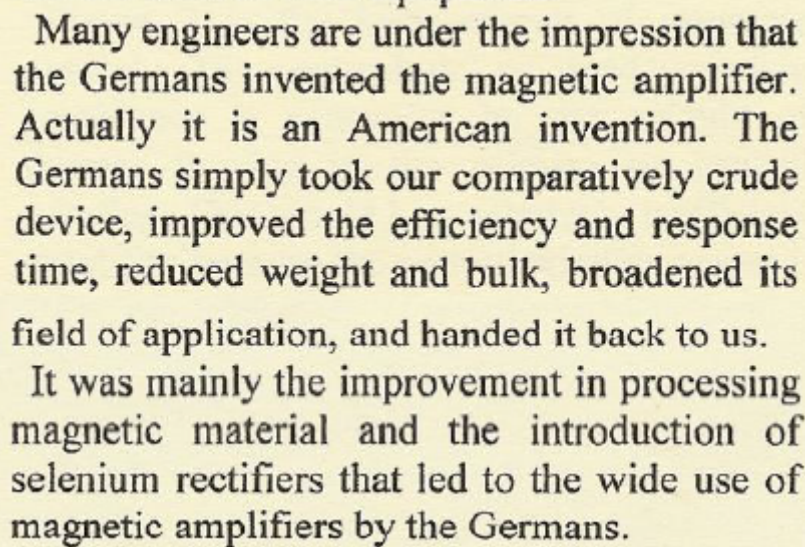
It is important to note that the Ampere Turns on the input side must equal the Ampere Turns on the output for maximum efficiency. This is a very interesting necessary fact of the Magnetic Amplifier.

Magnetic Amplifiers, very good read:

<http://www.themeasuringssystemofthegods.com/magnetic%20amplifiers.pdf>

The following are snippets from this document:

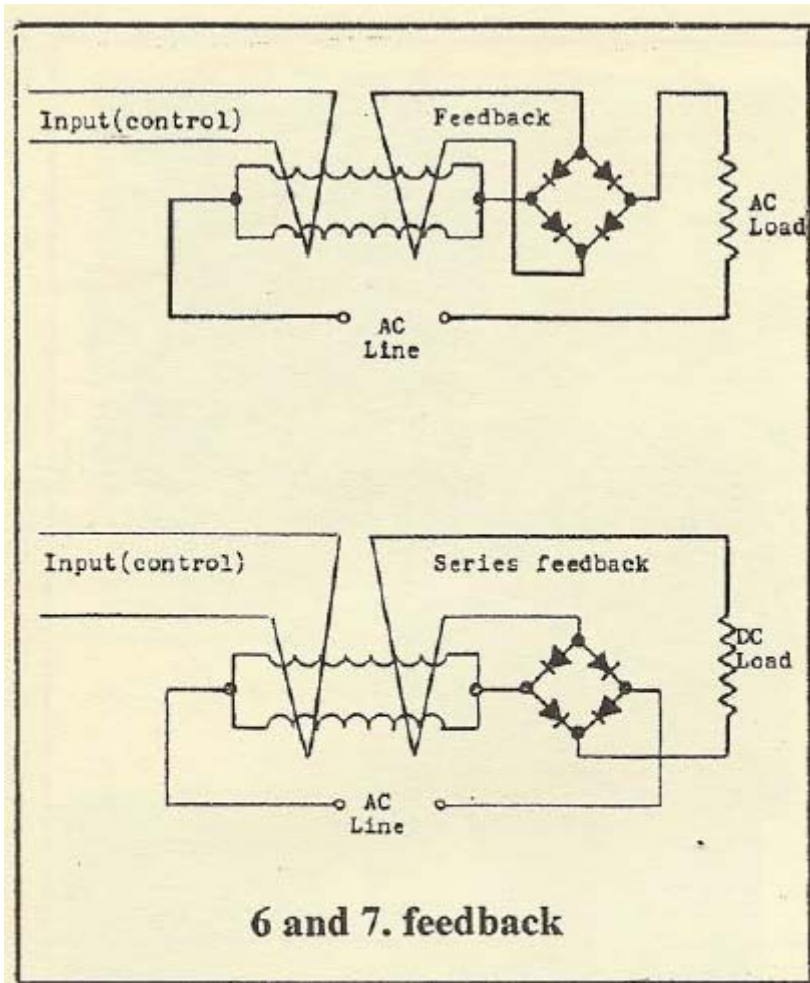
Fig 11 – Snippet 1, Germans and Magnetic Amplifiers:



Many engineers are under the impression that the Germans invented the magnetic amplifier. Actually it is an American invention. The Germans simply took our comparatively crude device, improved the efficiency and response time, reduced weight and bulk, broadened its field of application, and handed it back to us.

It was mainly the improvement in processing magnetic material and the introduction of selenium rectifiers that led to the wide use of magnetic amplifiers by the Germans.

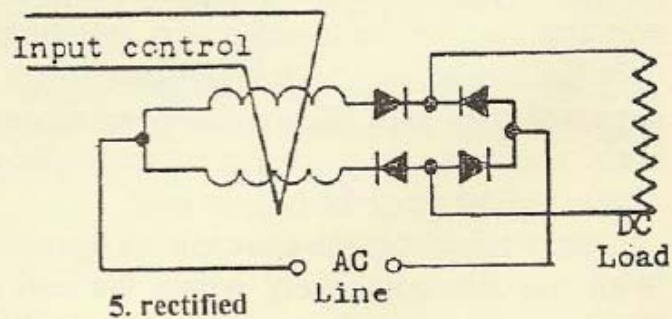
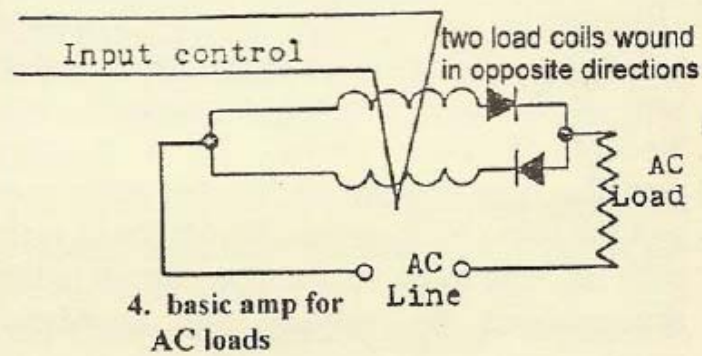
Fig 12 – Snippet 2, Magnetic Amplifiers Schematic:



Figures 6 and 7 show further developments with the addition of feedback. Gains of up to several million per stage have been obtained with these circuits.

It is interesting to note that Floyd's Gains were in the millions also.

Fig 13 – Snippet 3, Magnetic Amplifier Windings and isolation:

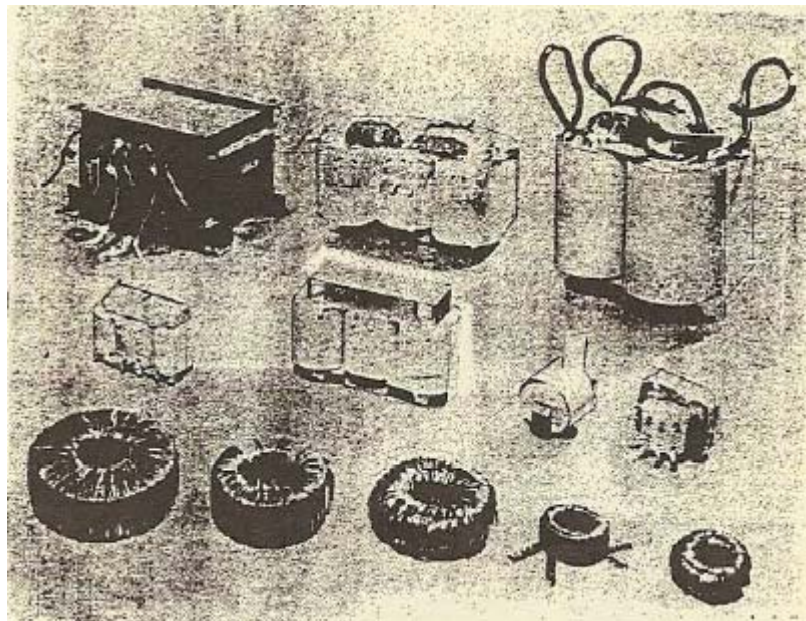


4 and 5. basic circuits

Figures 4 and 5 show a more practical design. (To simplify the sketches, cores will be taken for granted and control windings will be represented by a single turn.) With two load coils they can be wound opposed, neutralizing any transformer effect into the control coil. The two power coils also permit utilization of both sides of the alternating current, resulting in a good waveform and efficiency. Figure 4 is the basic amplifier for a.c. loads. With the addition of two rectifiers (5), the device generates and controls a d.c. load from an a.c. supply. Three-legged cores with the control coil wound on the center leg and power coils on the outside are usually used with the above circuits in power-control applications.

Fig 14 – Snippet 4, Germans and Magnetic Amplifiers:

And typically these are the devices mentioned above:



A Rotating Magnetic Amplifier is an Amplidyne. This is a Picture of an Amplidyne:

Fig 15 – A Rotating Magnetic Amplifier (Amplidyne)

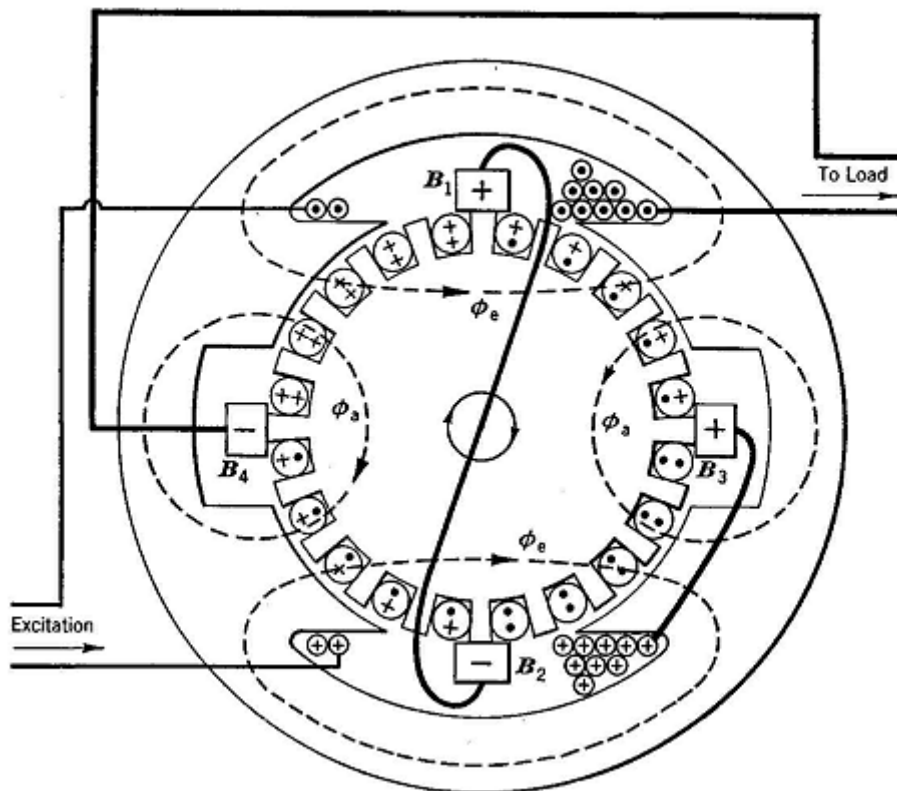


Fig 16 – A Rotating Magnetic Amplifier (Look at the Tag, General Electric)



Ok, I hear you, "Isn't that who Floyd Worked for? General Electric?" Yeah, he did.

Fig 17 - The Circuit of the Amplidyne:



Ref from Wikipedia.

An amplidyne is an electromechanical amplifier invented during World War II by Ernst Alexanderson. It is usually an AC motor driving a DC generator with modifications to increase the power gain available. A small electrical signal can control the position of a large motor using this approach.

How an Amplidyne Works

An amplidyne is a special type of motor-generator which uses regeneration to increase its gain. Energy comes from the motor, and the power output is controlled by changing the field current of the generator. In a typical generator the load brushes are positioned perpendicular to the magnetic field flux. To convert a generator to an amplidyne you connect what would be the load brushes together and take the output from another set of brushes that are parallel with the field. The perpendicular brushes are now called the 'quadrature' brushes. This simple change can increase the gain by a factor of 10,000 or more.

Historically, amplidynes were one of the first amplifiers to generate very high power (tens of kilowatts), allowing precise feedback control of heavy machinery. Vacuum tubes of reasonable size were unable to deliver enough power to control large motors, but vacuum tube circuits driving the input of an amplidyne could be used to boost small signals up to the power needed to drive large motors. Early (WWII era) gun tracking and radar systems used this approach.

Amplidynes are now obsolete technology. Modern electronic devices for controlling power in the kilowatt include MOSFET and IGBT devices.

IMPORTANT TO NOTE: IF the VTA was a Magnetic Amplifier, there needs to be a core in the Coils. The Magnetic Amplifier and the Saturable Reactor work on Core Material Hysteresis. The Core must move through the BH Curve or not move through the BH Curve depending on the Excitation field. If the VTA had no core in the power coils then it was not a Magnetic Amplifier.

The Unknowns...

There are still many secrets to the VTA of Floyd Sparky Sweet.

We still don't know for sure if there was a core in the Coils. It was stated by Walter Rosenthal that there was not, and the coils, in the VTA were coreless. I quote: "The Vacuum Triode Amplifier (VTA) invented by Floyd Sweet consists of two ferrite magnets and two to four coreless wire coils." If the VTA worked like a Magnetic Amplifier, then there must have been a core in the device and it must have been highly Magnetic.

Do we really know the VTA's Weight? We were told the VTA weighed approximately six pounds. Six Pounds is 2.72155422 kilograms. If this is the case and the VTA did weigh six pounds, we have some very light weight material in the construction of the Vacuum Triode Amplifier.

Just one Ferrite Permanent Magnet, measuring 4" x 6" x ½", weighs in excess of 1.6 Kg by it's self. This is a standard, from the factory, 4 x 6 x ½ Ferrite Magnet. This means if the VTA weighed six pounds and Floyds Magnets were similar weight to each one of my Magnets then it left -0.4 Kg's for the Coils. Ah... Problem!!! This information is unlikely to be accurate.

Summary.

It is easy today, to show that a device can show solid state generation of energy. It is easily done in many devices and configurations. The problem currently is how to get the gains to self run and still light 500 Watts of light bulbs. We are all willing to learn, but the problem is at what cost? Should we have to spend half our lives and all our savings on trying to "Save the Planet"?

Yes we should, and we should be supported by the masses. If we don't succeed then our Children and our Children's Children are in for a bleak miserable future, if a future at all. I know in my own mind, if I don't try and if I don't succeed then I have failed.

The Earth is telling us right now that it is not happy. Dooms day predictions seem to be happening all around us at the moment, Quakes, Floods, Fires, Volcanoes, Birds Falling Dead from the Sky, Fish dying by the thousands and much more.

Lets change this world and make Mother Earth Happy to have us live here.