The Aether Vortex Energy Converter:
AVEC
Revision 1.0

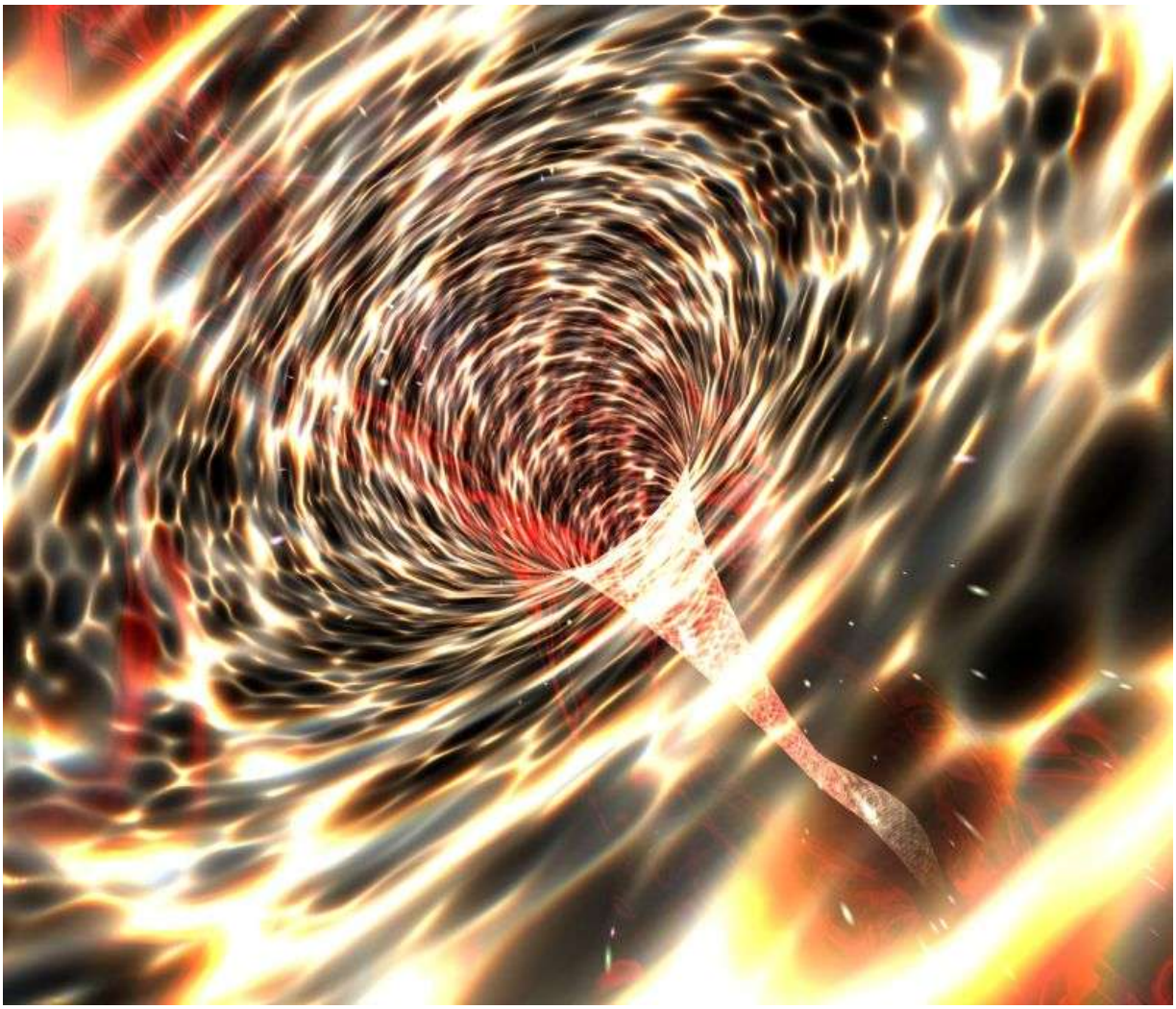
This document details a device that purportedly utilizes an aether vortex to induce electric current, much like a generator, but without any moving parts. The information is presented as it was given, with the exception that the names of those involved have been changed and all personal information has been removed.

References are made to Nikola Tesla's Radiant Energy, Cold Current/Electricity, and the TPU Device invented by Steven Mark.

The validity of this information is left as an exercise for the reader.

The name of this 34 page document file is: Aether Vortex Energy Converter_AVEC Device_1_0.pdf

This document is accompanied by two MS-Excel files and PDFs:
M1_lookup_table1_v14.xls
M7_coil calcsv3.xls
M9_____pulsed power.pdf
M9_calcs for flybacks.pdf
M9_mag amp control.pdf
M9_magnetic amplifier calcs .pdf
M9_nanosecond scr switch.pdf



Message 1
Hello

Good day gentlemen,

Make sure you download and SAVE the attachment as this is a one view message. The document is an excel document saved in xml format.

(Deleted personal information.)

I'm going to try and get the most important information to you first so you'll know the parameters within which things should work. Without them it's like pissing in the wind on a freezing day and expecting to turn around and see you've created a frozen swan ice sculpture!

People I'm in contact with are EEE, DDD, FFFI, BBB and CCC. Feel free to converse or not as the case may be. I'd appreciate you not share attachments direct onto the forum or exchange by open email, by all means convey the ideas as suggestions to forum members by PM or message postings, to get them onto the right path.

I'll send a standard email to explain the attachment.

Yours,
AAA

See M1_lookup_table1_v14.xls

Message 2
Levels

In this image I've shown a scale from 0 - SOL and vertically the respective relative energy levels. Rather than divide by 6 as in the spreadsheet, I've shown for ease of drawing purposes ONLY, a divide by 3. Divide by 6 is what needs to be used in calcs.

Again for ease of drawing I've shown the division on the top end of the scale so that you can see the divisions. In the spreadsheet I showed the divisions calcs for the left hand side, lower energy side, of the scale. Also for ease of drawing I've shown the energy guide lines (dotted lines) as being linear, in reality the guidelines are exponential but this is more difficult to draw.

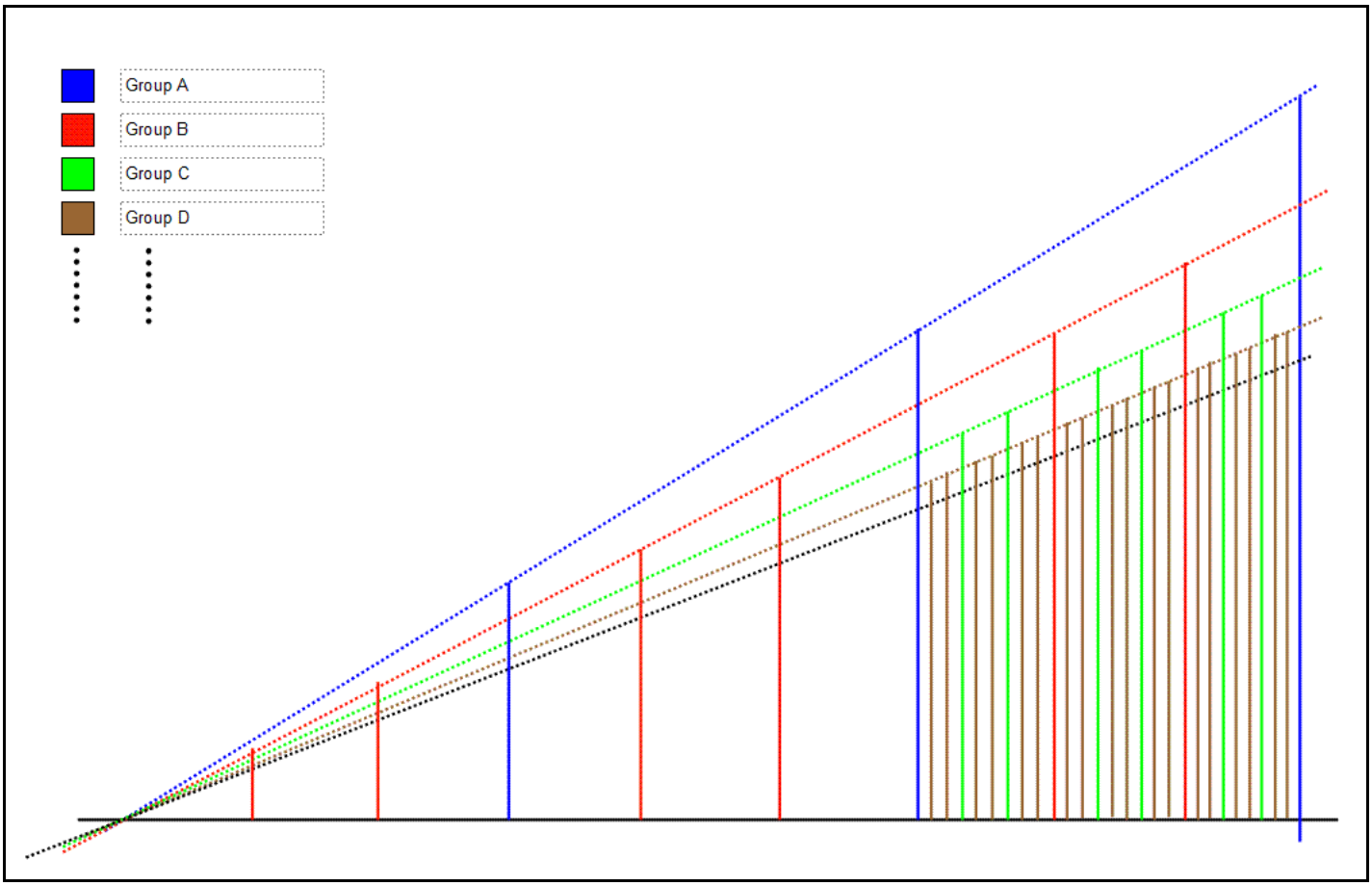
Moving from left to right you can see how tuning is very tight for a particular frequency and gives a rapid rise in energy as you tune in.

I'm putting together a word document to pull all this together but it's taking time and to fit it in.

I have your questions and will get to them in order.

Don't reply direct to this email - is outgoing only.

yours, AAA



Message 3A
Most bang for your bucks

No attachment. Just copy-paste this into a text doc for reading.

With the input coils, you want to get the biggest bang for your buck so to speak. The key piece of knowledge concerning manipulating the ether is it is not done using magnetic fields!! Now there's a head spin for yer sonny. It is done by applying the highest voltage tension possible across the largest ->mass<- of copper or other non magnetic metal, with the -->lowest non-zero current<-- possible. For the tension to have the required effect on the copper you need only the smallest amount of current. Your aim with wire choice is to use the highest gauge for maximum resistance per foot and to use as much as possible within the space available for the coil. With gauge I'm refering to AWG not metric where higher metric gauages are lower resistance. And they say standards makes life easy! Voltage is cheap, is it not ?

So use your cheap high voltage, sequence of rotating pulses and bias field to spin your ether into a vortex. A large amount of ether waves due to using a large mass of copper will cause large amounts of current to appear in a conductor in an induction-like process -->regardless of the measureable magnetic field from the coils becuase you have the coils under high tension creating ether waves<-- which is why I say induction-like. There are other factors to take into account when spinning an ether field and I'll cover these in the words doc when I get it out.

To make sure you've got this concept.

10 Watts of input.
10 VA of input.
10 Volts @ 1 AMP
20 Volts @ 500 milliamps
100 Volts @ 100 milliamps
500 Volts @ 20 milliamps
1000 Volts @ 10 milliamps

You need a static magnetic field (bias field) for the rotating ether to interact with. You rotate the ether extremely cheaply at the appropriate speed using cheap to make high volts, bearing in mind the previous documents I sent. I know I still need to explain the documents. Now the static magnetic field needs to be a standard magnetic field, not an ether field, so this coil needs to be fed relatively low voltage at a high amp, as per normal magnetic field generation from a coil.

----> DO NOT USE A PERMANENT MAGNET FOR YOUR BIAS FIELD. IT WILL IF YOU HIT ON THE CORRECT ROTATING PARAMETERS EXPLODE INTO THOUSANDS OF MINUTE HIGH SPEED PARTICLES. <----

As always no iron to be used in cores.

If you use high voltage plates as a bias field OR wind the SEP coil, bias coil, as per an input coil and feed high volts, low current then you start to work with predominantly the ether fields, which leads

onto cold electricity generation. To extract cold electricity requires maintaining geometric relationships between position, mass and volume encompassed by all the individual components. Depending on your luck there will always be a cold electricity component to your devices which manifest in the device not running so hot. As you get nearer to the right geometries the device runs cooler.

Again yours, AAA

Message 3B
Lets hope this will work - 3 rd resend!

3rd and hopefully final resend.

Copy message and attachment.

With the sine wave you can get away with the offset from 0V to be less than 50V. But it absolutely cannot go -ve on a regular basis even for a fraction of the wavelength. The odd glitch is OK.

With the square waves it's more crucial to be over 50V preferably much, much higher into the 400-500V and the corresponding high of the square wave moved that much higher.

Choose to use either pulses or sine wave not both. The pulses are into the input coil described in the last message. IT IS NOT BIFILAR.

By DC offsetting the waveform you don't need to use a bifilar but you do need a sep coil that goes around all your coils.

The bifilar is what SM was using. Because he didn't have the equivalent of a SEP coil powered from the start, the initial output from his output coil was small. He then fed part of this back into the TPU (VERY BAD IDEA) and had it wrapped around every input coil. This puts a SEP coil around the bifilar. The combined effect of the bifilar and SEP around the coils gives the same effect as you'll get from applying the waveform in the diagrams to one input coil. He also had the equivalent of a main SEP coil but with only 4 turns around the toroid. He connected an input coil then wrapped right round past the input coil and connected to the next input.

Your SEP coil wants to be a constant DC voltage and current that never varies via feedback. You set the level manually. This sets the TOP level of possible power you can extract. Even with non drifting pulse rate there are factors that can move you into an unexpected higher level of energy in an instant. If you're feeding back you won't catch it in time before more energy goes into your SEP coil and you move up another energy band. This is the runaway event.

The next you might find hard to believe but it what we have found out. Factors that detune the device and move it into another energy band are time of day, whether it's day or night, the longitude position, the lattitude position has no affect, and humidity. Which reminds me, on the radioshow Jack recalls how uneducated Steven must have been to try to cool his device in water. He was not cooling the device. The speed of light in water is 25% less than in a vacuum. Anything placed near the edges of the coils immediately change the tuning and how well behaved the device is. It would appear to be a

logical step to see if it calmed the tuning variences down. BUT THIS IS A BAD IDEA AS WATER IS A POLAR SOLVENT AND CAN CAUSE BAD THINGS TO HAPPEN. Oil burns as is not agood idea either. We tried setting the whole TPU in an acrylic block and the block went opaque with millions of crazy paving lines.

Out of time for tonight. I'll put a diagram together tomorrow of SM coils and connections for one version of his device and another diagram of the optimum way of setting out your coils for a flat SM TPU device.

The tetrahedral version was for public consumption and had no continuous ON, SEP coil. If you try to drive COIL A on permanently the design doesn't work.

Yours AAA
(See the following two images on this page and the following page.)

Figure 11a Sine Wave Input

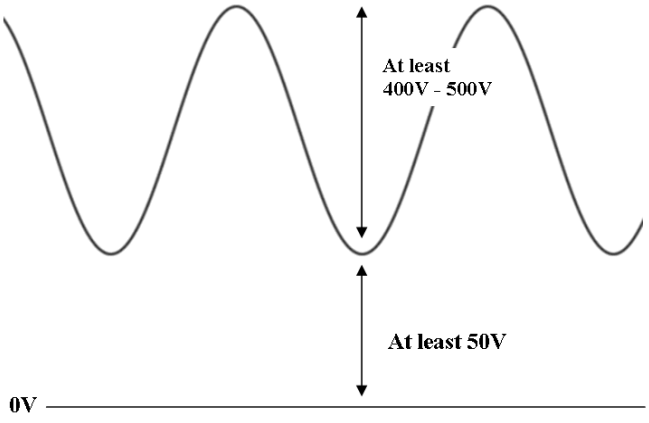
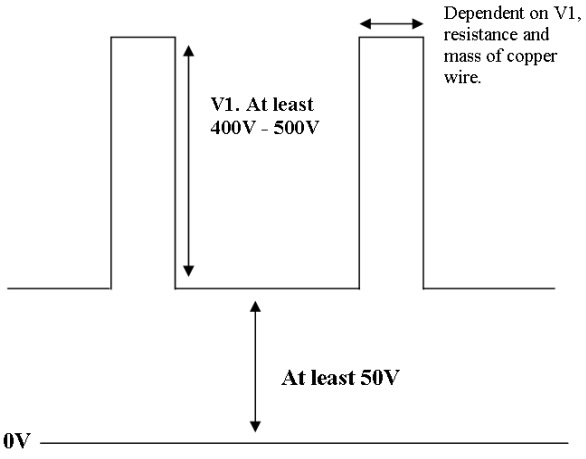
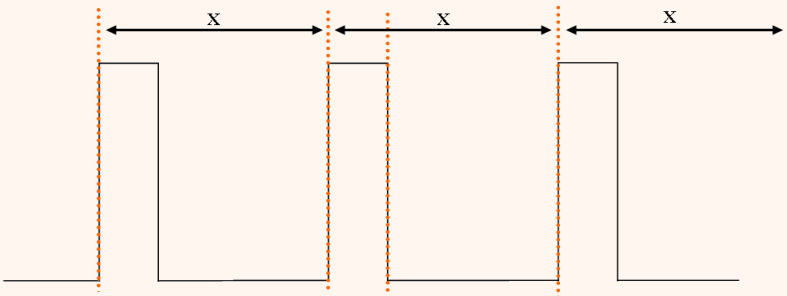


Figure 11b Square Wave Input

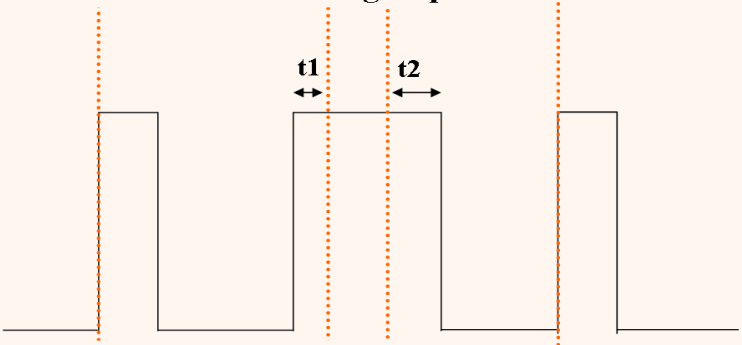


High Voltage, Low Current

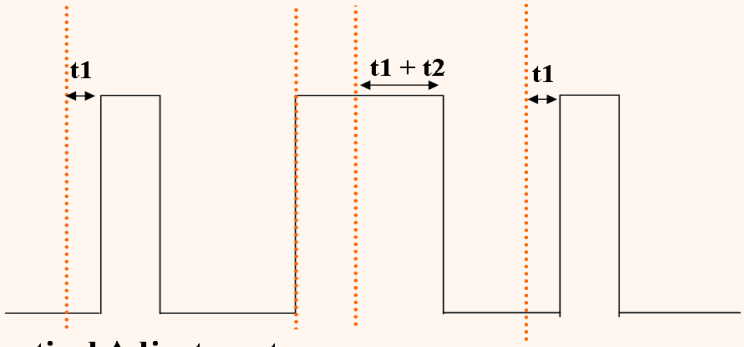
Figure 4 Tuning for 3 Coils



A. Ideal Situation. No tuning required.



B. Tuning Required



C. Practical Adjustment

Message 4

Hi,

Preliminary parameters are on the enclosed attachments. Although there are 6 input coils you can use 3 if you wish. Or use 6 and pulse in pairs.

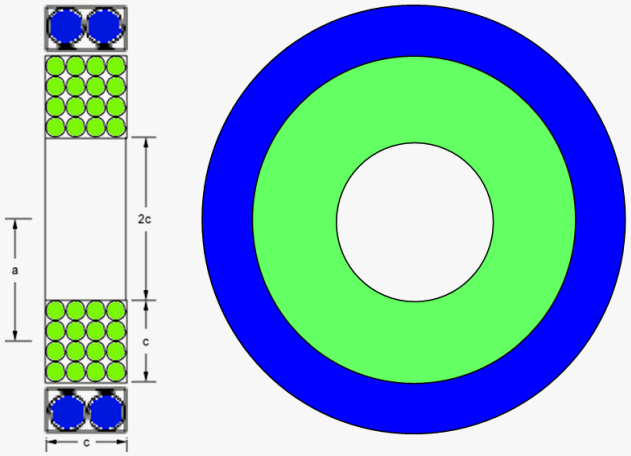
I added a separate SEP coil to each input coil to replace the 900V level to keep the length shorter and therefore volume of input coils so diameter of unit to build is reasonable for you. This means pulsing with simple HV square wave. 0V - 1500V. I still need to calculate diameter, inductance of input coils, number of turns, wire gauges, length of wire, pulse width and so on, so that it all fits in the space available. Position and size of all things is very important. Pulse width needs to be fixed across frequencies. Parameters I hope to make these to you on the weekend.

The gray circles are placement guides and not coils. The input coil SEPS are connected in series. This is horizontal control. The MAIN SEP and CB SEP are vertical control. These coils need to produce standard magnetic field therefore low voltage. Adjust current to adjust magnetic field and gives control to power potential of device. The input coils emit little magnetic field but emit ether waves that alter the ether waves that make up the static magnetic fields form the SEP coils. The interaction causes a real ether rotation to occur rather than a pseudo magnetic field rotation. The ether rotation once started takes time to wind down. The interaction of the rotating ether with the copper of the TOC produces an induction-like effect in the TOC turns. Ether in centre rotates slower than ether on outside.

I have appointment to make will add more later for more explains of the working on everything.

All the best, AAA
(See the following two diagrams on this page and the following page.)

Build Diagram 1. Geometry / Ratio for Input Coil



- Air coil
- No metal core.
- Copper wire.
- NOT bifilar.

- Green coil has ratios for maximum inductance for wire length. Known as Brooks Coil.
- Green coil uses high AWG, thin wire, for maximum resistance.
- Green coil likely to have 1000+ turns.
- Green coil is high volts, minimal current.
- Green coil inductance not changed by current in wire.

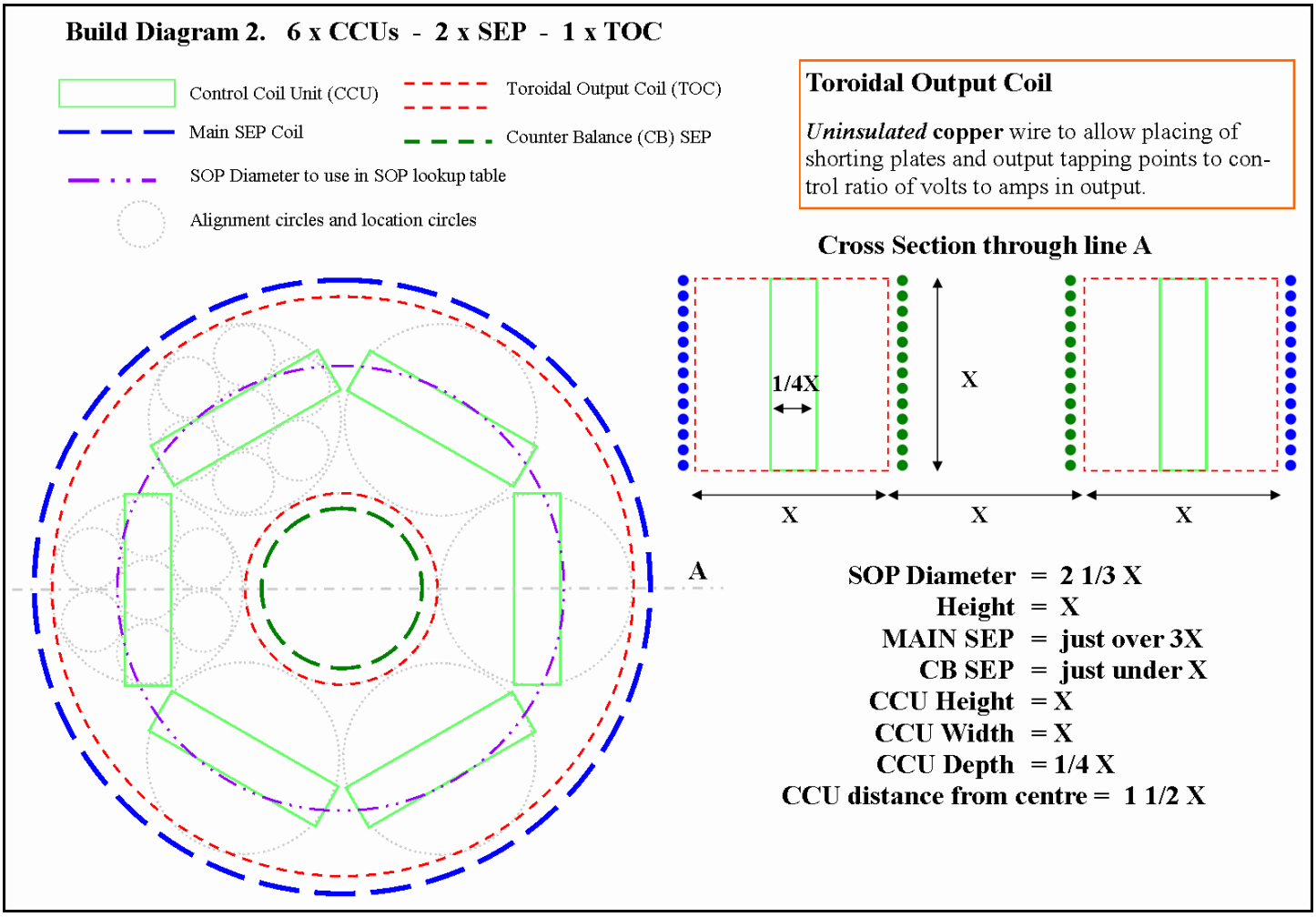
- Blue coil is a SEP coil.
- Blue coil to use much lower AWG, thicker wire, for lower resistance.
- Blue coil is low volts (12-50V), higher current.

Inductance calc for Brooks coil

$L \cong 0.025491cN^2\mu H$ **OR**

$L \cong 0.016994aN^2\mu H$

An input coil with own SEP will be called a CONTROL COIL UNIT (CCU).



Message 5
Practical Build Diagrams

2 attachments + this text.

DDD did some CAD drawings of possible support structures and I realised I hadn't told you something that is important.

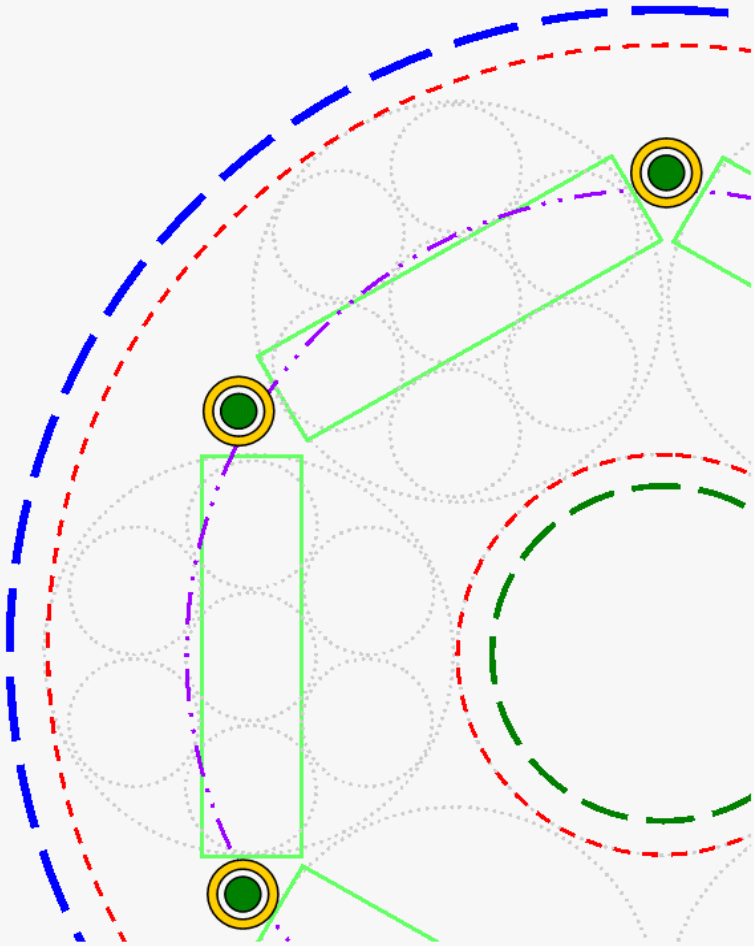
The inside needs to be as empty as possible, that is filled with air, as opposed to being filled with plastic support structures. At the same time the coils needs to be located securely, rigidly and in the correct position and orientations.

The uninsulated toroid output coil on the SIDES needs to be exposed directly to the inside of the toroid where the input coils are without any insulation tape or the like in the way.

There is also a few more notes on what is important in the ratios. Basically horizontal distances are very important, vertical distances not so important.

AAA
(See the following two pages for referenced diagrams.)

Figure A—Practical Support Structures



NOT TO
SCALE.
NO RATIOS.

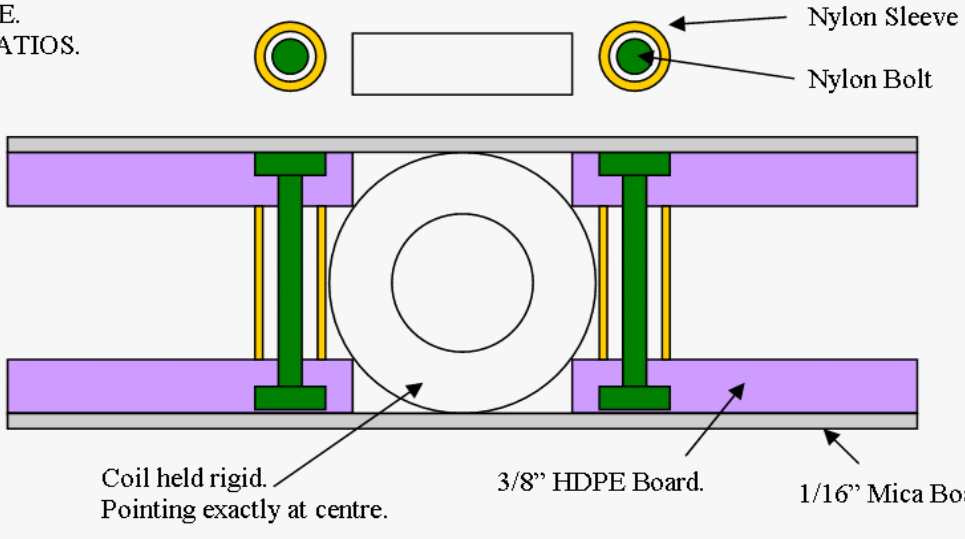


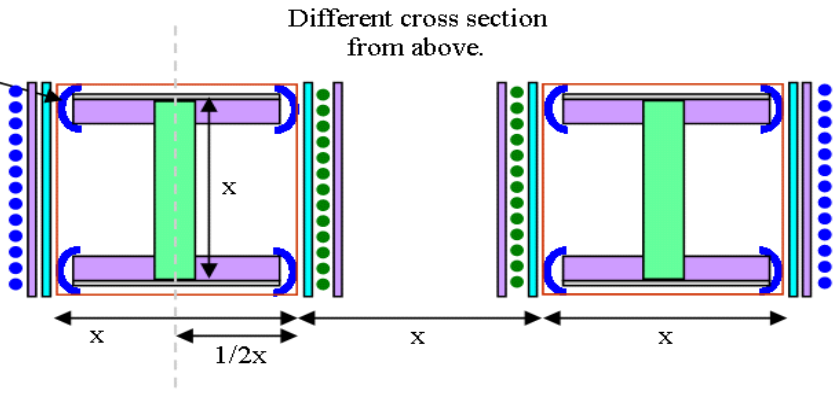
Figure B—Practical Support Structures

Soft silicon tubing.
Sliced down length.
Makes toroid winding easier.

Horizontal dimension are important. Vertical dimension are more flexible.

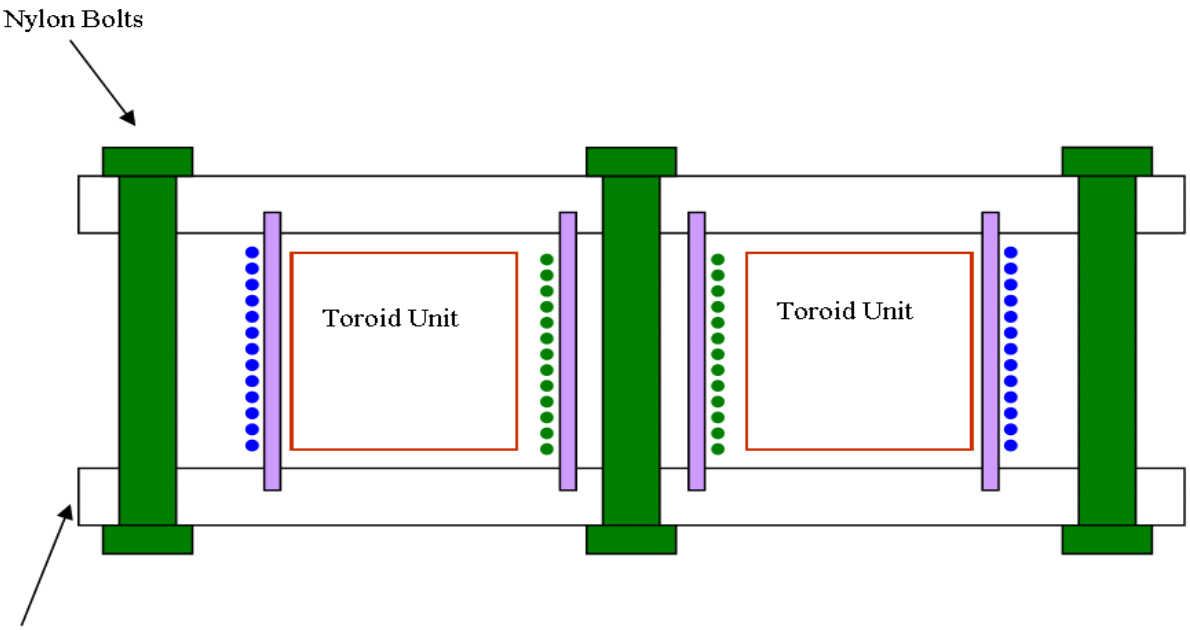
4:1 Coil ratio is important to the extent of being a Brooks coil. But this has fair amount of leeway.

Coil rigidity is very important. Pointing at centre is very important. Placement very important.



Teflon tape on sides but not the top.

MAIN SEP and CB SEP are wound on HDPE pipe and slotted inside and over toroid.



This shows how to bind all three pieces of the device together, toroid and 2 SEPS.

Take another two pieces of HDPE board.
Cut round slots in board for the HDPE pipe to slot into.
Use spacers to allow top & bottom HDPE board to press against toroid unit.

Doing things this way means you can get at the input coils by only unwinding the toroid output coil.

Message 6

Calculation Errors:

Hi,

Just had a couple questions comments...

In build diagram 2 it shows the CCU as having a height and width of X and a depth of 1/4 X, which comes out to a ratio of 4:1. Those are the ratios of the Brooks coil, but according to build diagram 1, the ratio of the Brooks coil with SEP on it is 5:1, because the SEP changes of ratio of height/width to depth. The addition of the SEP in build diagram adds another 'c' to the length, so that is why it is 5:1. I did some research and the Brooks coil can be slightly off and the L remains relatively intact, perhaps that is why you said this in your recent email "4:1 Coil ratio is important to the extent of being a Brooks coil. But this has a fair amount of leeway." Could you set me straight this, the seeming ratio change with the addition of the SEP to the CCUs?

Another thing I noticed was in the coil calcs xml, in cell C10, the 'constant' for the calculation of the inductance of the Brooks coil, it has 0.016994, but I think it should be 0.025491, because based on how I see you calculating the inductance, you seemed to be using the 'c' in your calculations for the cells in column N and O, and not 'a' in your calculations. Just something I noticed, I realize it doesn't affect anything severely, I just thought I would point it out. If I am wrong on this, please excuse me, I must have seen it wrong then.

Oh, one more thing, in build diagram 2, you show "CCU distance from centre = 1 1/2 X", but looking at the diagram in the build diagram 2, it seems to show that this value should be 1 X and not 1 1/2 X.

If you could set me straight on that too.

CCC

Reply:

I agree the CCU diagram is confusing. The SEP is only one or two layers on top of the coil. I was trying to show using a larger gauge wire. The diagram with C, A marked on it, was taken from the internet and the SEP added ontop. A brooks coil can fall away from the 1:1 on the space occupied by the windings without losing too much self-inductance. The calcs used for wire length add 10% for enamel and 15% on top for imperfect winding. After winding the length you'll find there is normally room to add the SEP. If not lose 50ft of wire but do this for all input coils so they are as close to the same as possible. Similarly when you buy a bobbin, buy on the outside dimension of 1:4 so it will fit in the space available. As long as you still have a length over 1000ft, as high a self-inductance as possible, and as near identical coils as possible you can play around to make things fit within the 1:4. ***It has to fit in the location marked, which requires 1:4.***

Thanks for picking up on this mistake.

D9 was supposed to refer to C9, making the constant OK, as C9 is 1.5X.

You are right in diagram 2, CCU distance from center should be labeled as X.

thanks for pointing these out.

AAA

I need to recheck the calc sheet. Will send a revised sheet out ASAP.

AAA

Thanks BBB. The material you've sent is already giving me avenue for research.

Many, many thanks.

AAA

Cell B6 should read 3/8X and formula in C6 should be changed accordingly.

Therefore AWG for coils is 32 or 31.

I'll resend out the sheet in the next day or so.

AAA

Message 7

Corrected coil calc sheet

Hi,

I corrected several errors to do with constants and wrong cell references.

If you are using double depth enamel then you need to add an extra 10% to the enamel calc. column. I've added a thick bobbin side adjustment if the bobbin you're using has unusually thick sides but the 15% winding compensation is normally more than adequate.

The main change variable is now X. I've created a green summary box of final numbers for AWG 28,29,30 as these are reasonable diameter for handwinding. You can of course use higher AWG but it's a real pain handwinding even if using a lathe or variable speed drill.

If the wire comes in 1200ft reels then adjust calcs to 1200ft!

The SOL diameter should really be near to one of the diameters in the lookup sheet for optimum performance and tuning but at this size you're probably better off picking X so that you can place and locate your coil and toroid output coils accurately.

AAA

See: M7_coil calcsv3.xls

Message 8

Hi,

I haven't heard from you in a couple days so I thought i would go ahead and post my list of questions that I've been stocking up on from reading your recent e-mails:

1. Referring to the SEP and CB SEP coils, could you give us any rough specifications on the size wire/ number of turns/ current input that we should use? Is there any threshold B-field strength that we should know about when adjusting it?

CCC

Reply:

There are a number of things that are happening with these SEP coils which I have yet to explain.

Ether pulses are emitted from the input coils which you may like to thinkof as charged +ve and -ve particles, or perhaps encapsulated waveforms of very high frequency. If they hit a copper wire a flow can occur on the surface of the wire between the wire and the insulation of the wire. The insulation seems to improve the flow of the charge to the plates. If a positive 'particle' hits the wire, for the flow to occur there needs to be a plate of the opposite charge connected to the wire. This flow is cold electricity. Plate of opposite charge means using a capacitor or battery. The cold electricity on hitting the

plate has a charging effect. The amount of equivalent charge that appears on the plate is dependant on dimensions of the plate and insulation on the wire. Neither of the former we can easily control with off the shelf parts unless you like to make your own capacitors/batteries. But in a SEP coil which is connected to the battery we have both positve and negative plates.

This means we get a flow through the coil of cold electricity. This has three effects:

1. The coil remains cooler than expected for the normal current flow

2. the battery charges up to some extent

3. and we believe the magnetic SEP pattern changes in a subtle way, due to this cold current flow, because the nature of the current output changes. The nature of the output can be seen in a incadescent bulb on the output. The bulb lights the same amount of room but does not strain the eyes when you look at it.

This means:

Initially each SEP is powered from its own battery source. A voltage of 15V or more enhances the cold current flow. There seems to be a threshold of around 10V-11V for this. In practical terms this is 2x12V, 7Amp/Hour batteries connected in series providing 24V. 2 batteries per SEP. Once youhave everything going you can connect in parallel all SEPS to the one battery set of 24V. Tuning is easier when you don't have all the noise and cold current flows of all the SEPS feeding into each other.

By changing the ratio and direction of magnetic fields generated by each SEP, you can vary the nature of the output, between normal current and cold current. ***Always have a load connected on your output as you can measure low volts and low amps yet have massive amounts of light coming from a set of 100W light bulbs.***

SAFETY:

If you bang-off (quick turn-off), the SEPS, and you are very, very unlucky, you run the risk of an explosion.

Make sure all connections are well made and tight.

Use a good quality variable resistor to control current and to wind the current down over a few seconds when you need to turn off the SEPS and obviously to tune your SEPS.

Have a dead man's switch on your rotating circuit NOT on your SEPS. You can kill the rotation pulses instantly without cause for concern. The deadman's switch is not for explosions but for ether pulses that register as pain, or unpleasant tingling, or heat. A deadman's foot pedal works best. If you fall over, faint, trip, the rotating stops. Don't like what is happening simply walk/run! away.

Now onto your actual question.

Assuming X = 3 inch giving 9 inch diameter coil.
For outer SEP, MAIN SEP
AWG 22
3 layers of around 100-110 turns.
Total turns 300-330.
2 amps max
Volts 24.
Amp turns of 600-660.
Watts = 40-50 watts.

Around 0.5 watts per square inch surface area heat wise.
Final amps after tuning up to 0.5 amps.
For inner SEP, CB SEP
4 layers of around 100-110 turns
Total turns 400-440.
2 amps max
Volts 24.
Amp turns of around 800-880
Around 0.5 watts per square inch surface area heat wise.
Final amps after tuning up to 0.4 amps.

AAA

2. Referring again to the SEP and CB SEP cois, should the magnetic fields of both coils be exactly equal (and opposite) to each other or is there any sort of ratio of the magnitudes that we should observe?

CCC

Reply:

If the inner SEP magnetic field is around 25% lower than the outer SEP, and in opposition, you get mostly traditional current. Vary SEP currents slowly to see what cold current you get.

AAA

3. For the output winding, are there any constraints to the type or size of wire that we can use? Does it matter if solid or stranded wire is used? What is the relationship to the number of turns to the output V and I relationship?

CCC

Reply:

No constraints as such. It needs to be able to carry the amps if you tune for traditional current. Uninsulated wire is used for experimenting with different modes of output. You can rewrap with insulated to add more turns or create a custom coil based on your experimental results.

Uninsulated wire is used for a reason it gives options to configure the output amps and volts. You can short the output leads and place a metal copper ring on the top and bottom of the toroid and take output leads from the top and bottom. This gives a different mix of current and cold current. Or unshort the output leads, remove the metal rings and replace with smaller metal plates placed at intervals in a ring on the top and bottom. Or have no plates or rings and just use the output leads. You can also angle the turns in which case the field generated by having a load on the output will interact with the existing fields. This can create very high currents and voltage if you get the angle right.

Add more turns to take off more power.

Increase rate of rotation to find next sweet spot up for more power.

The 9" will give at least 1.5KW

AAA

4. In an FFFier e-mail about your tetrahedral unit, you mentioned that square wave inputs cause a bit of hearing but sine

wave inputs would be ideal to allow the unit to run cool. Since we are pulsing with square waves for the current setup, will there be any hearing issues that have to be addressed like what Steven experienced?

CCC

Reply:

No only to the extent of the output coil heating up if you configure for traditional amps and volts, and your amps rating on your wire is too low or wire has too high resistance.

Steven's devices had iron in them for delay timing purposes into bifilars. The iron had eddy current problems. It would heat up and tuning would go out.

AAA

5. Are there any constraints on the orientation of the coil itself. I recall that Steven had an upside-down problem in his FFFier units. Could you shed some more light on what that was all about?

CCC

Reply:

There are no constraints. He had no all encompassing SEP so relied on the natural underlying pattern of the ether (not the earth magnetic field).

When you flip it over the natural ether pattern stays the same but by definition a clockwise spin is anticlockwise when you flip it over, which totally destroys the ongoing patterns. The small magnets he placed on some devices were very weak magnets to trigger hall sensors to turn the charging circuit on. These weak magnets were not strong enough to create a reference SEP.

Later devices used a main SEP but he then used feedback into the main SEP which caused positive feedback nightmares with ensuing meltdowns.

The tetrahedral design has no main, all encompassing SEP, and also stops if flipped over.

AAA

6. I've finally had a chance to take the time to read more about the saturable inductor switches. It really is an awesome way to produce HV pulses without much fuss. I do have some questions to ask you though.

What did you guys use to make the cores for your inductors? I remember reading in the patent that they used some kind of permeable tape that was wound over a plastic core. Is something like this available or could you point me to a source where I might get a core for this? Also, I noticed from reading the patent that the output pulse width and rise time seems to be determined by the saturable core properties rather than the pulse circuit itself. How are you controlling the output pulse width of the saturable reactor? Did you have to use more than one or was a single core enough to produce the needed pulses?

Thats all I have for now. Still trying to make sense of the output stage circuitry.

CCC

Reply:

You buy the cores. Search on magnetic amplifier cores. Companies will send you samples if you ask.

If everything is built to tight tolerances then all pulse widths are the same and you have no need to delay any of the pulses. You just need the shortest pulse width possible in order to save input energy. Width and rise time are determined by the squareness of the hysterisis curve when using one sat core. When using multiple sat cores it depends on the L/R of each inductor wound on each successive core and added capacitance. But yes the pulse width is fixed into the design. You can see how it would be able to deal with feeding back of output that had high current glitches and voltages.

You can use one sat core. You can improve the rise time, if needed, by feeding the output from the sat core into a spark gap. It'll limit the max frequency you can use though because of the trailing fall time.

The timing is nice to have on smaller units because it can really lower your input power, increase your output power, keep output power stable, and reduce noise in the output. It is not necessary if you build carefully.

This design has high voltage and low, low current; you could use mosfets.

AAA

Message 9

Reference documents:

Useful reference technical notes/papers on pulse generation:

See:
M9_____pulsed power.pdf
M9_calcs for flybacks.pdf
M9_mag amp control.pdf
M9_magnetic amplifier calcs .pdf
M9_nanosecond scr switch.pdf

Message 10A

BBB_AAA_correspondence (date deleted) – how to see ether oscillation

Sorry AAA, don't have everything with me to refer too. For the CCU, how do you see "it" on a scope? I understand that you pulse the inner and the outer has the DC for the steady field. Do in need to wrap a coil around the ccu to see "it"?

BBB

Reply:

If the steady field is from a battery you'll be able to see on the terminals of the battery.

OR

Charge a 100V cap to 50V. Cut two separate pieces of wire around 8 feet long that has

good insulation. Connect one wire to one terminal and the other wire to the other terminal - no circuit!. Curl the wires up into two rough cylinders, diameter unimportant. Place near the CCU. Now pulse the coil whilst measuring the voltage on the cap, and scoping the cap. On the scope it looks like a very short burst of sustained oscillation. voltage on cap will steadyly rise. Cut wire down to get best pulse definition.

AAA

Hey AAA,

Looking over notes on your FFF instructions for getting a kick on a scope.

So, you just wind two wires - same length - in a plastic core - place a delay coil on one - and apply your sq wave to both and when delay is good you get the kick. One scope probe per wire.

As an analogy, I think Tesla's high-capacitive secondary shaped the pulse like a pulse forming network of sorts. Compressing and sharpening the rise/fall. When this gets to the third coil, which is high self-induction and low capacitance, you get a very sudden expansion.

Hey, is there an enhanced capacitative effect when you run these at a freq higher than resonance? Like the feed is faster than the mouth it is feeding.

BBB

Reply:

Resistance of your delay coil compared to resistance of the bifilars needs to be negliable. As always bifilars need to be v. long, thin wires. Pulse with as high a volts as possible, in the hundreds, pref. over 1KV. Resonate a flyback and half rectify for the pulses.

Or make a CCU and observe on scope.

AAA

Message 10B

(Seeing ether oscillation: AAA to FFF)

With the bifilar coils the two bifilar coils need to be identical.

Take a look at this site to see how precise speaker voice coils are wound, as an example, of precise bifilar winding.

http://www.audiostar.com.cn/asp-bin/EN/?page=8&id=57

See item D.

You can get voice coils made with round not ribbon copper wire without any aluminum also having a bobbin made of kapton. Kapton doesn't distort under localised heating.

In an ideal world you'd feed each coil from a separate source capable of producing square pulses over 150V and then control the pulse timings. If the coils are identical then the pulses will be identically timed e.g. the pulse width is the same but the start and end are offet, phased if you like, by anything from a few nanoseconds to microsecond. If your coils are not identical then you'd need to adjust the pulse width so that the difference in turn-on time is not the same as the turn-off time. Although the turn-on difference is important the turn-off difference is more important to control because at the time of turn-off you already have energy in the system. The repetition rate is important and must be consistent; the frequency must not drift. You also get a much better effect if the whole coil is also wrapped with another coil and a pure DC current applied. However if you do this the whole set of coils needs to be bonded together to stop relative movement between the bifilar coil and the static field coil. See posting below that explains why to use DC field - VERY IMPORTANT.

I'll put a diagram together.

Assume identical pulses. Measure the ramp up time on your scope, divide this by 10. Adjust the delay, phase, so that the second pulse turns on 10% before the end of the ramp up time. Apply this to your bifilar coil. Now sweep through the frequencies from 1khz to 3.5MHz. At a certain point you'll observe very high frequency high voltage pulses that start to appear. Once you get the largest effect go back and adjust the timing of the turn-off differences first, followed by the turn-on differences for maximum voltage and duration of these pulses. If you don't have that level of control adjust the the overall phase for the best high voltage effects.

This shows you that ether energy can be accessed but the energy is not in an easily useful form.

Rotation is the key and using SPACE to control the timing so the effects occur not in your pulsing coils but in your output coils.

In the example I gave where the iron delay coil was used obviously the resistance of the iron coil needs to be negligeable compared to the resistance of the bifilar coils and you need higher volts because you are substituting brute force for finesse. Indeed different voltage pulses can be helpful but not if one pulse is 150V and the other is 30V. 500V and 300V would be OK. 300V and 150V would be OK. 1200V and 900V would be even better. The information from Mannix concentrated on the generation of this kick so I thought I'd let people know what the underlying principle of what SM was doing. It's a poor way of getting a delay and hard to get right.

Message 11

general schematic

See attached diagrams all gifs so fix up the extension accordingly.

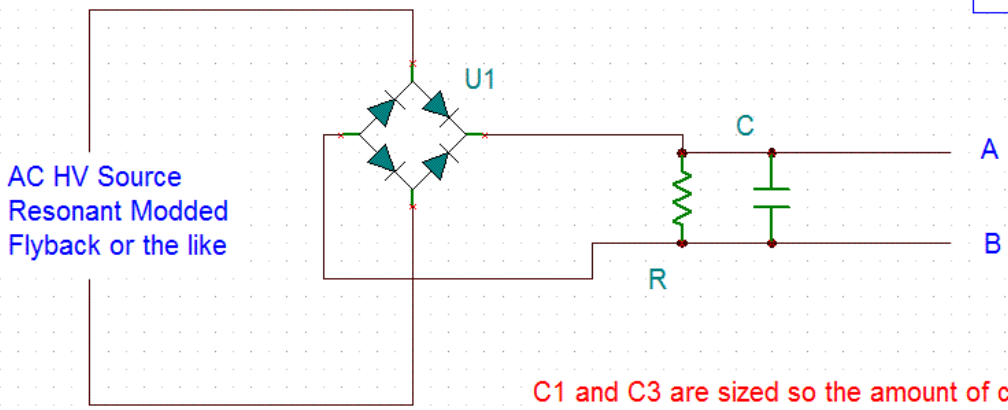
If you use a 1200V/1300V or 1400V cap there are a handful of mosfets that could do the switching rated at 1500V. The current max should be well below 50ma. Protection diodes should be used. The snubber is a must; check out the tech sheet pdf on snubber calcs sent previously.

http://www.st.com/stonline/products/families/transistors/power_mosfets/related_info/1500v_series_expansion.htm?wt.mc_id=expr_july_5_1500VMosfet%20

AAA

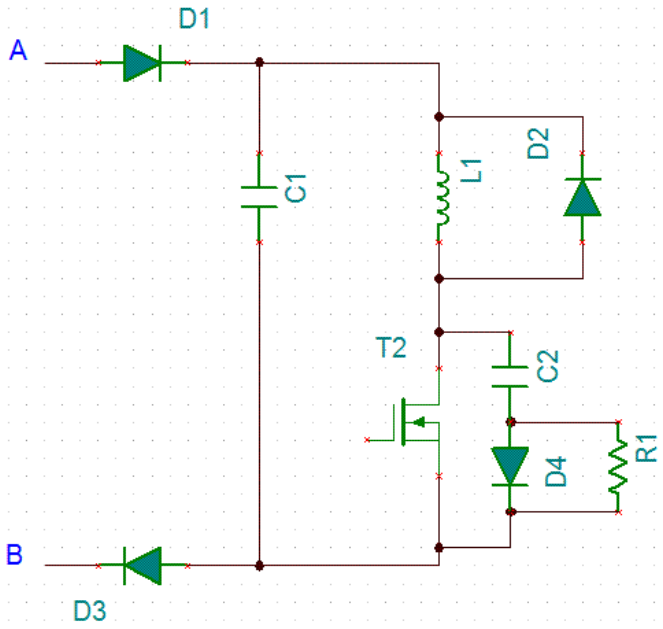
See:
M-11_ccu pulsing.GIF
M-11_SEP circuit.GIF
M-11_pulse requirements.GIF

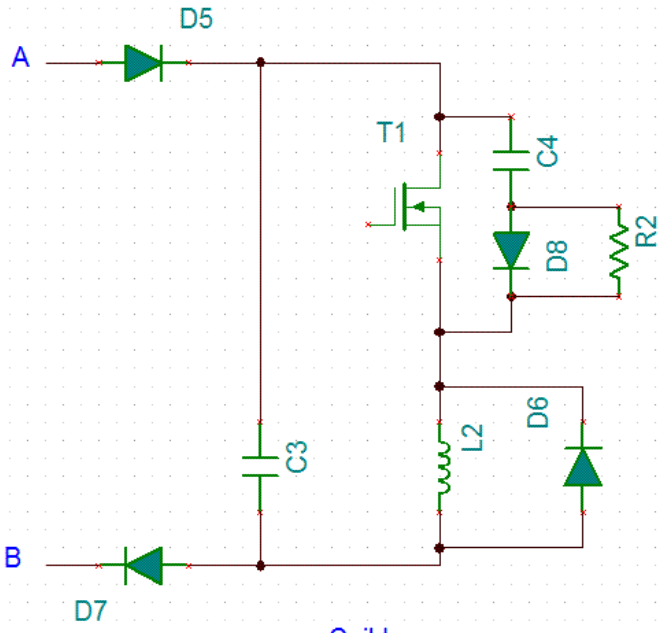
CCU Pulsing



C1 and C3 are sized so the amount of charge depleted after each pulse is 1-2% of the capacitor size. This is so there is insignificant voltage decay during the pulse AND therefore maximum voltage until the end of the pulse.

The snubber circuit is important as the pulse is being turned off during the largest di/dt of the inductor current growth curve AND the capacitor is 99% fully charged.





Choose to drive all brooks coils either on the low or the hide side not a mixture of both.

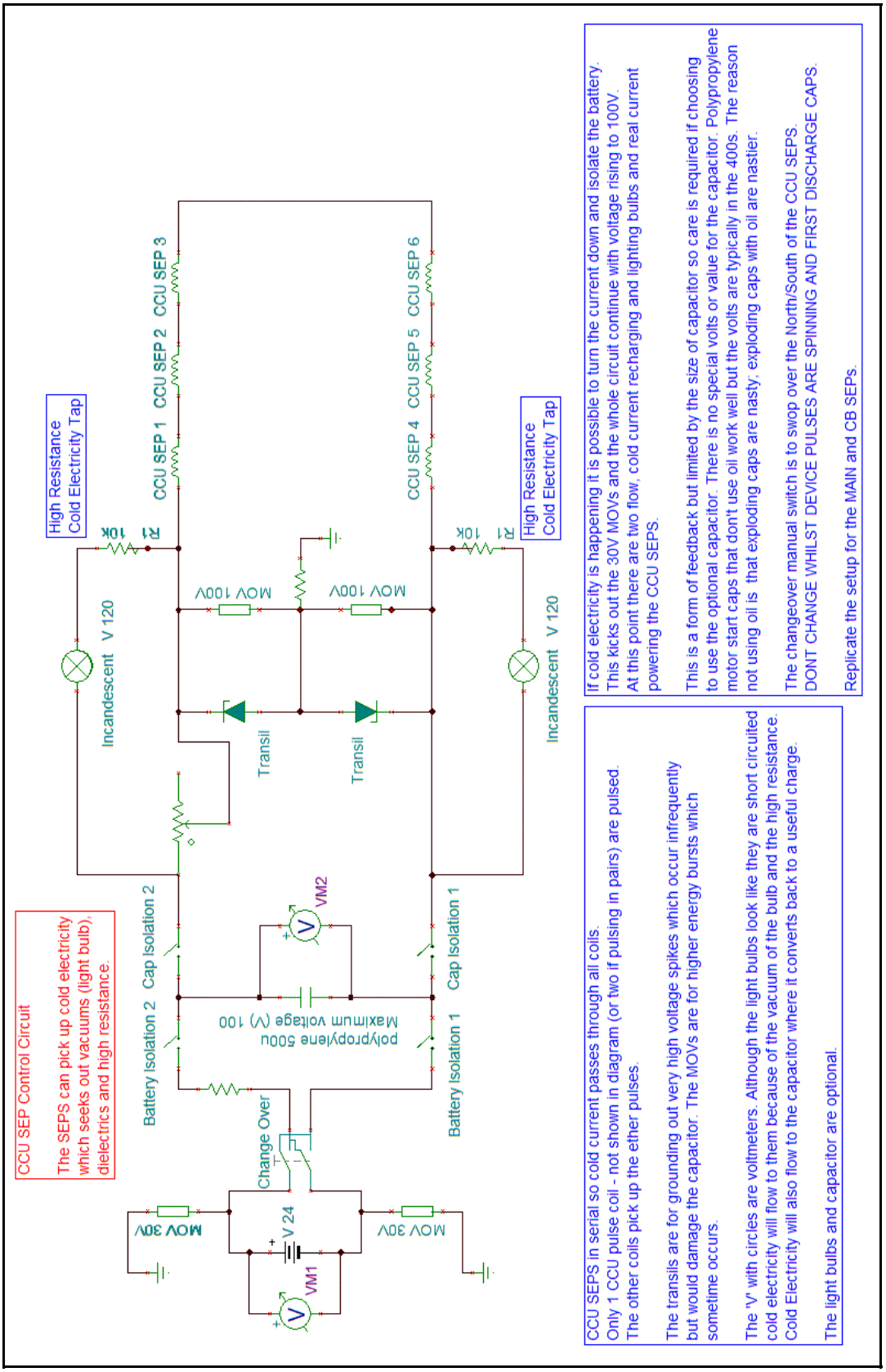
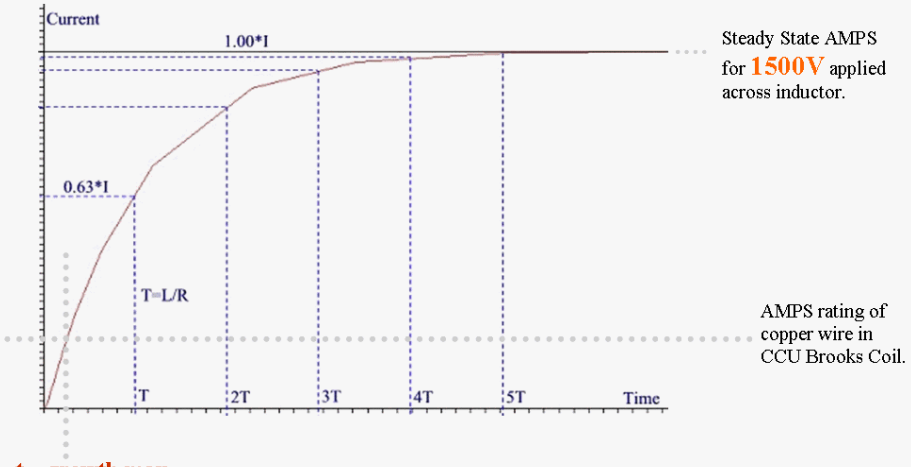

CCU SEP Control Circuit
The SEPS can pick up cold electricity which seeks out vacuums (light bulb), dielectrics and high resistance.
High Resistance Cold Electricity Tap
High Resistance Cold Electricity Tap
R1 10K
R1 10K
CCU SEP 1
CCU SEP 2
CCU SEP 3
CCU SEP 4
CCU SEP 5
CCU SEP 6
MOV 100V
MOV 100V
Incandescent V 120
Incandescent V 120
Transil
Transil
Cap Isolation 2
Cap Isolation 1
Battery Isolation 2
Battery Isolation 1
VM2
polypropylene 500u
Maximum voltage (V) 100
Change Over
MOV 30V
MOV 30V
V 24
VM1
If cold electricity is happening it is possible to turn the current down and isolate the battery.
This kicks out the 30V MOVs and the whole circuit continue with voltage rising to 100V.
At this point there are two flow, cold current recharging and lighting bulbs and real current powering the CCU SEPS.
This is a form of feedback but limited by the size of capacitor so care is required if choosing to use the optional capacitor. There is no special volts or value for the capacitor. Polypropylene motor start caps that don't use oil work well but the volts are typically in the 400s. The reason not using oil is that exploding caps are nasty; exploding caps with oil are nastier.
The changeover manual switch is to swop over the North/South of the CCU SEPS.
DONT CHANGE WHILST DEVICE PULSES ARE SPINNING AND FIRST DISCHARGE CAPS.
Replicate the setup for the MAIN and CB SEPs.
CCU SEPS in serial so cold current passes through all coils.
Only 1 CCU pulse coil - not shown in diagram (or two if pulsing in pairs) are pulsed.
The other coils pick up the ether pulses.
The transils are for grounding out very high voltage spikes which occur infrequently but would damage the capacitor. The MOVs are for higher energy bursts which sometime occurs.
The 'V' with circles are voltmeters. Although the light bulbs look like they are short circuited cold electricity will flow to them because of the vacuum of the bulb and the high resistance.
Cold Electricity will also flow to the capacitor where it converts back to a useful charge.
The light bulbs and capacitor are optional.

Figure 8 Inductor Current Growth



1. The larger the inductance, the larger the time constant L/R, and the *less steep* the current growth (di/dt) curve for the inductor. This means a longer time until t-growth max is met.

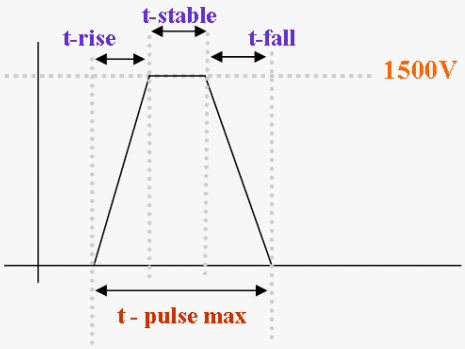
2. Assuming a perfect square wave then t–pulse max must be smaller than t-growth max or the wire will burn out. Ideally t–pulse max will be much, much smaller.

3. One of the conditions for an ether pulse/radiant energy to emanate from the copper wire is the induced EMF after time t-rise must be small enough that the voltage drop across the coil is at least 1000V. e.g. If a 1500V pulse is applied with a rise time fast enough that only 20V induced EMF occurs, after time t-rise, then the voltage drop is 1480V. This is a proxy method for determining if your pulse and coil will work together to create radiant energy. Adding iron even though it increase inductance does 'something' to prevent the ether pulse from happening.

4. Point 3 needs to occur repetitively where a SEP has been set up. The longer the wire, the more radiant energy is produced.

5. The period t-stable + t-fall represents wasted energy as the ether pulse has already occurred. t-stable can be zero.

Figure 9 Input Pulse without Load



6. **But** if the input coils are not in the exact position required then delaying the start of t-rise and/or extending t-stable to generate more ordinary magnetic field can improve the level and stability of the output for some reason to do with coinciding interference patterns in the ether.

7. A straight up, straight down pulse with as fast a rise and fall time as possible will create plenty of output, even if coil placement is not perfect.

8. Dumping a capacitor until empty will work but at the expense of extending t-stable and t-fall considerably and stressing the current limits of the wire. Reducing capacitance considerably will have a large effect on final voltage achieved after t-rise making point 3 hard to achieve.

AAA Answers to Questions

Answers to FFF:
Hi FFF,
Please accept my sincere apologies for not getting to this sooner.

1- ", are you on Skype - or would you be willing to join us on Skype?
I searched for the name " and there is a user with this name, but Skype said this user had not been on for a long time.
Reply:
I'm not on skype. At some point I think we could have conference.

2- With every post you sound more and more like the "twin brother" of the European Inventor. When you mentioned a time delay between bifilar windings, I jumped into the forum with a positive post in order to calm down the negative comments since people respect me. Today your PM blew me out of my socks since you mentioned using different voltages, which I had been keeping to myself. Until today you had said identical signals, so I kept quiet knowing that the European inventor used both time delay and different voltage on each winding - and roughly what you suggest using. The TPU and his invention are very different, but still have astounding similarities. As I understand he is using roughly 1 MHz clock with 10% duty cycle.
Oh, he mentioned that his output voltage is proportional to the difference between the two voltages applied to the bifilar windings. Also said something like 50V difference is the minimum and should not be below a threshold roughly 350 Volts.
Reply:
With control coils you want to get the biggest bang for your buck so to speak. The key piece of knowledge concerning manipulating the ether is it is not done using magnetic fields!! Now there's a head spin for yer sonny. It is done by applying the highest voltage tension possible across the largest mass of copper or other non magnetic metal, with the lowest non-zero current possible. For the tension to have the required effect on the copper you need only the smallest amount of current. Your aim with wire choice is to use the highest gauge for maximum resistance per foot and to use as much as possible within the space available for the coil. With gauge I'm refering to AWG not metric where higher metric gauages are lower resistance. And they say standards makes life easy! Voltage is cheap, is it not ? So use your cheap high voltage, sequence of rotating pulse and bias field to spin your ether into a vortex. A large amount of ether waves due to using a large mass of copper will cause large amounts of current to appear in a conductor in an induction-like process regardless of the measureable magnetic field!! which is why I say induction-like. There are other factors to take into account when spinning an ether field and I'll cover these in the words doc when I get it out.

3- When SM mentioned many wires in parallel, I assume he was talking about HF litz wire. Do you use HF litz wire? In which coils?
Reply:
I don't use litz wire in the input coils. It could be used in the output. Many wires in parallel refers to the output coil in his flat TPU.

4- I prefer to use quadrature phasing which means 4 + 1 coils, and 90 degree phasing. I don't think this changes things much and don't see any disadvantages compared to 3 + 1 coils. Do you agree?
Reply:

In a flat situation like SM TPU you will get it to work with 4 coils + 1 SEP coil. With 3 or 6 coils + SEP coil you'll be better able to control the output. Tetrahedral requires the 4 equidistant coils.

5- Where do you suggest is the best place to put the electronics? Where not to put ?
Reply:
You don't want them in the location where you are spinning the ether field. The center is a void.

6- Concerning the toroid output coil, roughly how many Volts per turn do you obtain ? Or turned around, how many turns to obtain X Volts?

Reply:
It depends on how fast you are spinning your field, how high a voltage you are using, mass of input copper, and how large the SEP field is, if you are using one. If you use lower gauge (AWG) wire in the output coil you get higher current. The volts depends on how accurately you can place the ether field within the toroid, otherwise you get a cancelling effect. With an SM TPU you don't have to use a toroid but thousands of vertical wires, joined series or parallel depending on whether you want voltage or current to dominate. e.g. 600V @ 1.5A or 100V@9A.

Again with regards,
AAA

Ansewrs to Questions from CCC and FFF.

Hi AAA,

I'm sure you are probably busy answering our questions so I'm not asking anything else for now. But FFF wanted me to pass these questions along to you (He was headed out the door and will be gone for a few days):

1- I have always thought that rise + fall times were very important, perhaps the most important in order to shock the aether. Now, I could use an isolated 12V supply and drive 3 FETs into 3 identical car ignition coils to order to generate 20 or 30 or 40 kV pulses. However these pulses would probably not have the fastet rise times nor would the

ignition coil be able to keep the voltage as the excitation frequency increased. Perhaps a modified TV horizontal transformer might be useful to generate the HV pulses?

Your comments?

Reply:

This is the way we see things:

Everything is ether. Elements are a stable pattern in the ether. The oscillation of the ether as a whole allows the patterns to continue. It provides the energy to keep spherical ether patterns continuing whilst allowing those spherical ether patterns to also emit ether waves. All elements emit ether waves.

You apply a voltage across a conductor. Ether waves are propagated from both ends at the same time. As they move through the copper the ether waves that the copper is made from cause further strong waves to move out from copper into the ether around it, (This is the ether shock wave), whether or not that ether is patterned into the elements of what constitutes air.

The ether shock wave is NOT the magnetic field. The ether surrounding the copper, could be ether patterned into air, or ether patterned into insulator, or just ether. This ether interferes, if you like, with the shock wave, and causes subsequent

ether waves to affect the ether waves of the copper. It's a cyclical interaction that settles to a repeatable pattern of interaction. Once the repeatable pattern is established even though you still have the same voltage across the conductor the wave from the copper is effectively attentuated and goes into building this repeatable pattern. PART OF the repeatable pattern is the magnetic field. All these waves are longitudinal.

A SEP coil generates a stable repeating pattern in the ether. An ether shockwave travelling through this pattern causes this stable repeating pattern to alter. As the shock passes the pattern reverts but in a finite amount of time. If you send out another ether shock before the pattern reverts completely, and from a different location, you can now manipulate the pattern, expand the pattern, or cause the pattern to rotate around in space. Even if this pattern does not manifest in a way that we measure as a magnetic field, it can still interact with copper to produce a current like effect.

The amplitude of the shock ether wave depends on the physical amount of copper the ether waves from both ends of the copper coil travel through and on the voltage applied across the coil.

Let's say it takes 10 units of time to form the repeatable pattern from the application of the HV pulse. If the HV pulse is 1200V but has a rise time of 60 units, in 10 units it will only have risen to 200V. (10/60 * 1200). In affect you are only creating an ether shock wave with 200V. This is why the rise time needs to be as sharp as possible. The trailing edge needs to be as sharp as possible so that the total pulse width from start of leading edge to end of trailing edge is as short as possible, to minimise the rise in current so only a very small magnetic field is generated.

Car ignition coils are not going to do much more than 500hz before the volts tail off. sparks per second = (7000rpm * 4cylinder) / 60 =~ 500Hz.

Modified TV horizontal transformer will certainly get you the volts, but you want constant pulse width in time, not percentage duty cycle, across frequencies.

2A- What stresses aether the most? Is it the voltage, the length of the coil winding, the rise time, the speed of rotation, mass of copper, or ???

Reply:

See previous answer. Rate of ether shock pulses in a circle on a magnetic field generated from a SEP(s) will have different effects at different speeds. At some speeds the ether pattern generated will not induce current like effect in copper wire as well as at other speeds. That is why the energy graph I gave you is trending upwards with speed, but within the trend has peaks and troughs.

2B- Is it possible to say the voltage causes the most aether stress by far,

with all the other factors far behind, or ????

Reply:

The shock wave comes from the copper. The HV causes the copper to generate the shock wave. + previous answers.

3- can you explain what a "tighter" pulse is ? one generated by multiple sat core capacitive discharges. Does this mean smaller pulse width, faster rise time, or something else?

Reply:

Faster rise time, faster fall time. Time spent at top of pulse should be only large enough to generate a feeble magnetic field. Straight up, straight down. I'll send a diagram.

4- Do we forget about everything we know about RLC circuits and say use the finest wire with a thousand turns because we are not dealing at all with classical RLC theory, nor traditional resonance?

Reply:

Only for input coils. The input coils are about shocking the maximum amount of copper with HV and insufficient current to vaporise the wire plus a small magnetic field.

5- Is aether better shocked with fat coils or long and skinny? Does it make sense, for example, to make the coil length equal to the diameter times the golden ratio Phi ?

Reply:

To be able to apply the voltage and remove the voltage before the current rises too high requires the highest inductance possible BUT WITH AN AIR CORE. Can't have other metals in the core.

Thats all of it,

CCC

Hi AAA,

Thanks for all the info. I just now realized that I kept replying the the wrong e-mail address, lol. Anywho, I did successfully receive the last attachment you sent, it was very helpful for my understanding, thanks. I know you are still preparing more information to send but I thought i would ask you if (since the system works using voltage and not current), if we could actually drive the coils open-ended to get the large voltage swings without wasting current?

Thank you,

CCC

Reply:

Do you mind if I forward your question and this reply to the others ?

It's a good question but you need minimal current. We tried what you suggested. Even if you drive open ended at resonance it doesn't have the effect on the ether that is required.

The system works by getting the maximum advantage from the largest mass of copper. The quantity of copper is important. Double the amount of copper, double the effect on the ether. Yet the amount of energy you need to supply has not doubled, it's stayed the same. Current flows in a wire only after an ether effect has rippled through the wire and out into the air surrounding the copper wire. Only after this has happened can current flow, which is another ether effect, then you see the typical inductor responce, as the magnetic field builds. But realise that this magnetic field is a secondary responce on the ether that has already been affected.

The higher the voltage the larger the ether effect. The more mass the larger the ether effect. But you have to have the current, as the current is the natural responce to you having applied the high voltage in the correct way.

----The initial ether responce is Tesla's radiant energy.<<<----

----To minimise the current that subsequently flows you can't use an inline resistor, it has to be the natural resistance due to the length and gauge of copper wire used.<<<<----

No doubt you've read about Tesla's radiant energy experiments where he obtained heating, cooling breezes, stinging rays that penetrated everything, light effects and more. If you apply a square wave of the sort I've shown where the lower voltage is over 500V and the top voltage is over 10KV you get these affects and much more, from 6khz through to 100khz. The length of wire in your coil needs to be long enough so the resistance of the coil is high enough that 10KV is not going to allow enough current through the wire to vaporize it. We used a capacitor bank and pulsed through a chain of 6 sat core inductor switches. Even using only one sat core inductor switch you can get stinging rays and cooling breezes. But you need a tighter pulse more defined pulse for the other effects, which the chaining of the sat cores does. The forum has mention of an example patent. Your capacitor charging network doesn't have to be sophisticated because once you've charge your cap bank the amount of charge required to keep it topped up is minimal because your current is minimal. The 500V level, via cap and charging network doesn't need to be switched; it's always on but isolated via diodes from the 10KV which is switched over the top of it.

AAA

Hi AAA,

I was just talking to EEE this afternoon and he shared with me the letter you sent to FFF that was talking about the issues with the control circuit being in the 'void' of the rotating field. I wanted to ask you about this as well as some basic details about the control circuit itself.

1. I've been designing a DDS controller circuit that can output the three frequencies for the coils (and also the forth 3x frequency by combining the first three). My PCB runs on two 9V batteries with the digital circuitry being galvonically isolated from the output stage, which, at the moment is just a set of IRF840 MOSFETs which can pulse either from the on-board 18V supply or an external voltage source. I have not began to do the board layout but I'm a bit concerned about how large the final circuit board will be and if it would be able to fit inside the 'void' of the field.

I remember Steven remarking that they had to put the control unit on the inner edge of the TPUs to keep them from being tampered with by the rotating field. One thing I am wondering is where the control unit would need to be located in your tetrahedral design for it to be save? If it can be located outside away from the unit, how far out does the rotating field extend away from the unit?

2. This question relates specifically to the output stage that drive the coils. I can definitely see what the requirements are from looking at the waveform image that you sent us in your last letter. I so far have been trying to think of the simplest way to produce the 400V square wave to drive into the coils. If possible, could you give me any tips on the best approach to this problem? I have thought about using something like an avalanche pulser circuit, though that design would be limited in frequency range (I think 100k max for most transistors). A second thought was to use two N-Channel MOSFETs in a push-pull arrangement with one tied to a 400V supply, then the coil could be driven capacitively (or directly depending on how the biasing is done. A third thought was to go with a saturable reactor or pulse transformer to make the HV pulses with a lower voltage input on the primary.

My concern though is that whatever I come up with may need so many parts that it becomes difficult for the control board to be economically small enough to fit within the toroid/ tetrahedron. I would be very interested in knowing how you and Steven accomplished this feat! This has been an excellent learning experience for me.

CCC

Reply:

In the tetrahedral you put the electronics underneath 1 foot or more, all the angles work together to make everything happen around the output toroid.

I know you want to build stuff but hold off from too much design. I'm sure I mentioned last week that the tetrahedral is for public consumption. I have a better design FOR YOU ALL, much easier, more controllable, but potentially MORE DANGEROUS, but ONLY because of the temptation to ramp up power to the SEP coil either by manual choice or because you decide to feedback output into the SEP coil. I KEEP SAYING THIS BECAUSE IT IS SO IMPORTANT. The SEP coil controls how much power you can potentially access. Keep the volts and amps going into the SEP coil, rock solid stable and constant regardless of what output you are getting. This keeps everything safe and stops an avalanche or runaway event. Steven used feedback because he was convinced this was the way to convince investors. The understanding on the SEP coil as a concept and what it does, came much later.

In the design I'm going to give you, you can have the electronics 3-4 feet away from the outside of the coil. Steven's designs created lots of magnetic noise because he didn't know what things in his coils were doing what. He attributed unstability and power surges that were due to the time of day to electronic malfunctioning. For a standlone package the center is where you have to place the electronics because you can't place them next to the coils. 3-4 feet away will be fine for a test bed situation and because you will be doing things with no iron, minimal number of coils, correct circumference, controlled SEP coil, correct speed and so on.

For each pulse you need a control to adjust the delay of the leading edge and another to control the pulse width. So for the 3 rotating coils you need 6 independent adjustments available in total. The 3 adjustments are on top of 120 degree phase between coils. Use 3 continously charged capacitors, one for each coil, for the voltage source for the upper square wave level, and three more continuously charged caps for the lower level. The lower level must be continously applied to the coil. You can't switch one followed by the other because you'll glitch down to zero, on a regular basis, which destroys all the ether patterns you are trying to build up.

AAA

Hi AAA,

Thanks again for your very detailed reply to my questions. It has cleared up a lot more things for me. Below I have some questions and comments from your letter.

> *The cold electricity on hitting the plate has a charging effect. The amount of equivalent charge that appears on the plate is dependant on dimensions of the plate and insulation on the wire. Neither of the former we can easily control with off the shelf parts unless you like to make your own capacitors/batteries. But in a SEP coil which is connected to the battery we have both positve and negative plates. This means we get a flow through the coil of cold electricity. This has three effects. The coil remains cooler than expected for the normal current flow; the battery charges up to some extent; and we believe the magnetic SEP pattern changes in a subtle way, due to this cold current flow, because the nature of the current output changes. The nature of the output can be seen in a incadescent bulb on the output. The bulb lights the same amount of room but does not strain the eyes when you look at it.*

Now this is VERY Interesting! This sounds very close to some experiments that I have done, which seem to show similar effects. I sent an e-mail to my friend XXX about this a few months ago and attached it to this e-mail so you can see. The attached file contains some pictures and a diagram of the setup I was testing.

> *By changing the ratio and direction of magnetic fields generated by each SEP, you can vary the nature of the output, between normal current and cold current. ***Always have a load connected on your output as you can measure low volts and low amps yet have massive amounts of light coming from a set of 100W light bulbs.****

Now this brings up an interesting question. I plan on measuring the output voltage with my controller circuit so that I can monitor the output from the coil and automatically correct the input frequencies to keep the output at a stable voltage. In your experience with the cold electrical output, have you found any good methods for accurately measuring the true power output of the setup? If a meter measures a lot less voltage and current, the controller may mistakenly assume that the power output is low and try to correct for this.... and I'm guessing that could get ugly real quick...

Reply:

By not feeding-back real output current back into the SEPS or the CCU coils the output is relatively stable; for the time of day. It's not stable as in a regulated supply but it's good to within 5%. Output voltage also varies +- 5% by time of day for some reason. I don't use any form of feedback but I do have an overheat cutoff that turns off the rotating.

To detect cold current look for a small over voltage on the batteries. It doesn't seem to cause a surge in over volts. We haven't been able to work out any method of detecting raw cold current flow other than it will light light bulbs and charge caps and batteries, which are all secondary events.

> *Now onto your actual question.*
> *Assuming X = 3 inch giving 9 inch diameter coil.*
> *For outer SEP, MAIN SEP*
> *AWG 22*
> *3 layers of around 100-110 turns.*
> *Total turns 300-330.*
> *2 amps max*
> *Volts 24.*
> *Amp turns of 600-660.*
> *Watts = 40-50 watts.*
> *Around 0.5 watts per square inch surface area heat wise.*

OK, thanks for these specs here. Regarding the bias field strength, I noticed that you are defining it in units of amp-turns. As I am not as intuitively familiar with this unit of measurement, would be it sufficient to measure the field strength in terms

of gauss/Tesla? Assuming that the ultimate B field strength is held constant, I am wondering if we are free to vary the turn count and current input for the bias windings without affecting the performance of the device?

Reply:

There is no magic in the SEP coils. They have to be there to provide a regular controllable magnetic field. The power you put into them and what ratio and direction of magnetic fields you put into all three SEPS is fully adjustable. The more power in general the larger the output voltage and current. Cold current does appear to like higher resistance which implies thin wires.

> *Add more turns to take off more power. Increase rate of rotation to find next sweet spot up for more power.The 9" will give at least 1.5KW*

WOW, I'll definitely have my kill switch standing by for that one! By the way, which collector coil configuration did you use to get that much output?

Reply: Output wires shorted. Divided ring (small plates) top and bottom. Take off from one plate on top and one plate on bottom.

> *You buy the cores. Search on magnetic amplifier cores. Companies will send you samples if you ask.*

I started looking around for companies that make these cores. I did see a few results but I have no idea what specs I should be looking for. Would you happen to have any recommendations for a specific core we cam use and/or a preferred manufacturer?

Reply: It depends on what current level you want for saturation turn on. I'll dig out some specs. and a manufacturer. I have a paper that explains the math. I'll get that to you.

> *If everything is built to tight tolerances then all pulse widths are the same and you have no need to delay any of the pulses. You just need the shortest pulse width possible in order to save input energy. Width and rise time are determined by the squareness of the hysterisis curve when using one sat core. When using multiple sat cores it depends on the L/R of each inductor wound on each successive core and added capacitance. But yes the pulse width is fixed into the design. You can see how it would be able to deal with feeding back of output that had high current glitches and voltages.*

Ok would you mind elaborating on your comment about the pulses not needing to be delayed if the pulse widths are all the same? Are you saying that the pulses don't need to be applied 120 degrees out of phase from eachother or just that you don't have to fine-tune the phase shift if the pulse widths are identical?

Reply: Sorry. 60 degrees out of phase if driving singly or 120 for an opposite pair. the delay was for fine tuning the phase shift as per one of the diagrams I sent.

> *The timing is nice to have on smaller units because it can really lower your input power, increase your output power, keep output power stable, and reduce noise in the output. It is not necessary if you build carefully.*

Ok, just to make sure I'm not getting things mixed up here; when you refer to the "timing" are you referring to the precisely controlled phase shifting of the pulses into the coil or the input pulse width from the controller?

Reply: You have your basic 120 degree or 60 degree phased as a given. All pulses same time apart from the previous one. Fine-tuning or timing is the delaying of a pulse by a very small percentage or extending the pusle width of pulse by a small percentage.

If this "timing" is not used, what does that imply?

Reply: Less power output, more power input, more variance in the output voltage.

This design has high voltage and low, low current; you could use mosfets.

I would certainly love to simply go with an all MOSFET design but since you mentioned that the voltage requirements go up to 1200V, that would be very difficult to pull off with the 500V fets that I have been using. I know that there are IGBTs that can go handle up to 1600V but they are really huge and have slower switching times than regular MOSFETs as far as I know. Or did you have an alternate purpose in mind? I suppose it would make a lot more sense if I better understood how you are connecting it all together. While researching the saturable reactor switches, I found that there were many different circuits for using them. I'm not sure what to do at this point, so I'll wait to hear more from you on the circuit design aspect.

CCC

Reply:

Visual 2 is correct. It's like an extremely high frequency wavefront going out in all directions. You can think of this as Tesla's radiant energy, or think of them as particles that have both electric and magnetic properties combined within the one particle. As they stream out they are undeflected by anything, affect everything they touch, and reduce affect according to inverse square of the distance from source. The magnetic field, which is a pattern in the ether, of the SEP is altered as the wave passes through. It creates ripples in the ether which because of the existance of the SEP appear like ripples of electric and magnetic fields; i.e. increases and decreases. As one pulse fires after the other, the ripples interfere into a series of wavefronts that rotate round.

Outer SEP, CB SEP and CCU SEPS are on all the time, so the areas of high and low magnetic fields are static, the pattern in the ether can be thought of as static, even though in reality it's a complex repeating pattern like a standing wave. The rotation of the ether pulses is what sets up the rotation as per your buildethervisual.

By altering the SEPS you can have wavefront that move in opposition, like your buildethervisual, or in the same direction. The different combinations of wavefronts impinging on the wires on the inside and outside vertical surfaces, gives different qualities of current. The wavefronts can build in amplitude because of the presence of the SEPS, and hence can hold high energy, which is why the SEPS shouldn't be switched off quickly, as per reply to DDD.

The FEMM diagram shows the right action of the fields. Not sure how you're modelling the MAIN and CB SEP, it's hard to tell without knowing the magnitudes of the fields.

You might need to model as one large coil and one small coil within it. If you've modelled the two as 4 coils it'll be slightly off because inside of coil is higher field than outside of coil.

Thanks, AAA.

Questions and answers between DDD and AAA:

AAA,

I hear that it is the current that kills. I am willing to work with whatever tension that you specify in your design. If caps are used then they must be discharged before nearing the device.

I do hope that you plan to release a circuit that will allow us to create the desired highest tensions while also providing the required fine tuning control.

(CCC said the other day that our typical mag-wire can only withstand up to 600V. I will wait for your design specifications but he will most likely be asking you about this and if we need special wire. I have a feeling that our low current, high frequency, and low duty cycle will mitigate this 600V limit. Or, maybe you will specify special wire. Again, I will wait to see what you propose before asking any further.)

But, for now, "do your worst," with regard to voltages.

Thank you,

DDD

...sorry, I can't wait to ask, will we be powering the device with a

battery; I hope that we will not be using the mains?

Reply:

Special wire is not needed, with regards to mag. wire and withstanding 600V, it's the volts difference per turn that is important.

Inductance of a coil increases with the square of the number of turns; high gauge - large turns. A brooks coil will give you the highest inductance for volume. The small duty cycle and frequency will be set so the current rise is not greater than the wire spec. We're not interested in building the magnetic field, only in setting up the required ether waves, which appear just before current flow.

With the lower voltage level this is obviously a DC level and so current is determined by resistance of the length of wire. I was discussing only yesterday what diameter of TPU would be most appropriate for your build. Approx. 3 foot diameter means there is plenty of space for the coil sizes required for the resistance to be high enough for the DC 900V level. A wide diameter makes coil position tolerance less critical.

Size does not determine danger, SEP coil power determines danger, and speed of rotation. At smaller sizes under 1 foot diameter, the volume of wire becomes too large to fit, and still get the resistance. At detriment to output efficiency the lower voltage can be dropped to 50V.

Alternatively a seperate SEP coil can be wrapped around the coil in higher gauge wire and powered by DC separately. This would mean your square wave could be 5V to 1200V with the equivalent of the 850V field provided by the seperate SEP coil. I hope you realise the DC offset level is the equivalent of a SEP coil around the input coils ?

Powered by battery.

AAA

Is it bad to use lacquer or epoxy on the brooks coils? I was hoping to lacquer/epoxy them up as I was winding them and then remove the spool material after curing, thinking that this would increase the air quantity inside the toroid and reduce the amount of material between the Brook's coils and the vertical windings. Besides, I can not seem to find a test that can be done to differentiate polar material from non-polar material. Who knows from whence this spool matter hath come?

DDD

Reply:

I've used commercial bobbins without a problem - there is not a lot of plastic in them. I've used transformer laquer before; it will work OK. At high voltages you need to handle the wire with latex gloves or similar so not to get acid from skin on the wire which will compromise the insulation at high voltage. Never used epoxy so don't know about this. Could be an issue keeping the coil to size, and keeping each coil the same size, same mass of copper (same length of copper).

Personally I wind 5-6 layers and then one layer of PTFE tape, plumbers tape, to hold in place. Once all done I weight the coil and measure its resistance. I leave 5 feet of wire to connect the coils to a connection block away from the device. The next coil I make to the same weight and check resistance is pretty much identical, both being a good proxy to length of wire. It also means you can pull apart coils to reuse the wire. With laquer you will won't to up the insulation percentage by at least 10%.

You don't want to use PVC as it's a polar plastic. It'll heat up at certain frequencies. It can also contain lead which you don't want as it's a metal.

Non-polar plastics such as high density Polyethylene (HDPE) are more suitable. It also has a low di-electric constant, high insulation properties. When it comes to support structures polyethylene pipe can work rather than PVC pipe.

AAA

It seems to me that the lookup table is primary, while the coil sheet is secondary; based upon the first. The lookup table seems to be giving diameters based upon the speed of light and some masterful harmonics calculations, the likes of which I am not worthy to gaze eyes upon. Why go to all of this trouble if we are not supposed to use one of these dimensions in the design somewhere, but where?

DDD

Reply:

The SOL sheet is to show you that these devices are accessing energy way down in the scale of potential energy and for your later use in your research.

I realise I never sent out an explanation concerning the lookup table. I'll do this soon. The diameters in the lookup sheet are the ideal SOL diameters for a toroid device. If you use these diameters then patterns in the ether reinforce each other. The nearer you are to one of these diameters the less energy you need to put into the device. In the first coilcalc sheet you change the SOL diameter and everything else changed around it. The SOL diamter is the diameter from this sheet. The SOL diameter is not the diameter of the toroid. The diameter is 3X as per the diagram. In the correct version I changed around the input so that you could choose X. This means you can choose X around the dimensions of the bobbins you are able to find. As getting the coils in the right position and having them more or less identical it made sense to choose 'X'. If you can also choose X and get the SOL diameter to near one of the lookup values all the better.

Obviously you can keep dividing by 6 each of the intervals and find a SOL diameter that exactly matches with your chosen X. How far down the levels of dividing by 6 determines the potential amount of energy. But even at the very lowest of levels there is a huge amount of energy. Small amounts of energy are not going to be your problems, just the opposite.

AAA

The diameter that you highlighted in cell E45 of your lookup table, 5.18", represents the OD of the toroid, the OD of the brooks coils, or something else?

What of the other diameters, 1.73, 3.45, 6.90,...10.36, how do these relate to the build diagram?

You used X=3" in the coil sheet, should we change this value to one of these diameters in cells E43~E48 of the lookup table?

DDD

Reply:

No, pick X for convenience to match the bobbins you can get. This will change the SOL diameter cell. It is this cell that is used to see at which energy level your toroid will lie, by using this value in the look up table. If you have resources to make everything with a CNC machine to precise tolerances then you can work to a SOL of choice. If not pick X so that X and 1/4X are easy to measure values. 3 inches and 3/4 inch are easy to measure. 2.891324 inches is not so easy. And the SOL is near to the 6.9 in the lookup table.

AAA

----------END----------