Alzofon – to gravely go

by Simon Derricutt | Jul 14, 2018 | anti gravity, Gravity, Physics, Space Technology | 37 Comments

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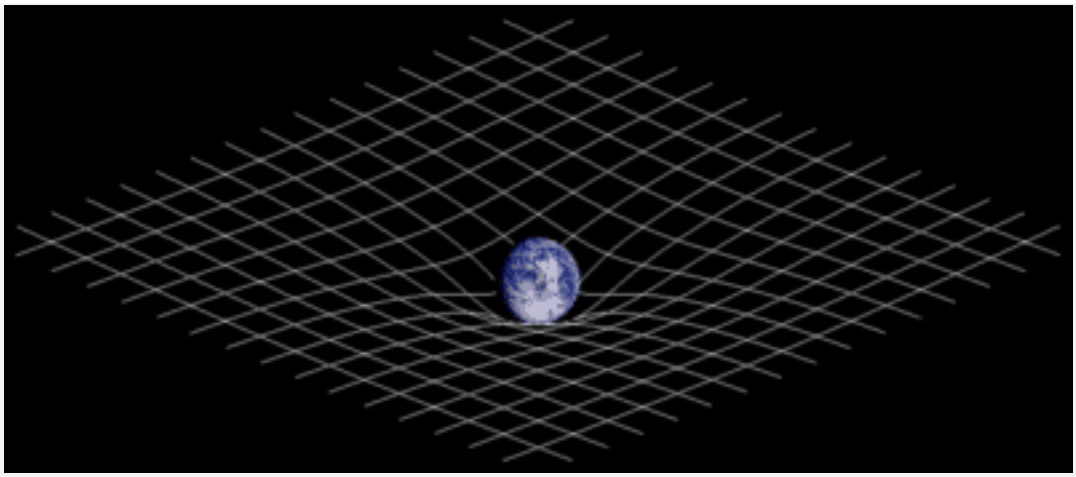

Spacetime curvature – courtesy Wikipedia

Updated 22 July (bottom). I've covered some heretical subjects here, but this one is crazier than most. In the tradition of asking why things happen, gravity remains difficult to explain. Einstein's General Theory of Relativity (GTR) specifies that mass distorts space, so we get curved spacetime and particles follow a geodesic (the equivalent of a straight line in non-distorted space) rather than experience a force as such. This is a little difficult to actually visualise, since it requires thinking in 4 dimensions which, as 3-dimensional beings, we can't do, so we use the visualisation of a 2-dimensional space with the third dimension being the curvature, which gets close enough that we can at least get the picture. There's a reasonable explanation of this curvature at http://www.einstein-online.info/spotlights/geometry_force.html which helps in explaining things. Feynman's lecture at http://www.feynmanlectures.caltech.edu/II_42.html is nice if you want a deeper explanation. Well worth the read. Although it explains the mechanics of what happens, though, it still doesn't really address the question of why it happens.
The GTR is incompatible with quantum mechanics (QM) with its "spooky action at a distance" that implies that all particles in the universe are in some way (and proportion) everywhere at the same time. QM tells us a lot about what what will happen and why, although again a lot of it is non-intuitive because what happens at very small scales is not the same as we see to happen at the human scale of things, where we're dealing with very large numbers of particles so we see the average results rather than the individual interactions. Averaging always loses information, but in our daily lives it's the average result that we're normally interested in, especially when the outliers may not happen in the lifetime of the universe, let alone our own lifetimes.

The start-point for this odyssey was http://revolution-green.com/free-energy-machines-sale/#comment-3964357580 a couple of weeks or so ago, where Chris Kepler pointed at http://energyscienceconference.com/ for people talking about their Free Energy ideas. Most of the ideas I've seen before and have pointed out for years that they simply don't work – having a theory is fine, but unless it is shown to work experimentally it isn't useful. Most of the contributors have been experimenting for years and claiming success, yet they still pay their electricity bills and need to plug their machines into the grid or a battery to make them work at all. They must be aware that their theories don't result in self-running systems, yet mostly they are selling books on how to replicate their work (which doesn't work). However, apart from those well-known Free Energy researchers and some people working on other esoteric ideas that I can't really comment on, there was David Alzofon talking about flying saucers. Not a subject I spend a lot of time on normally, since when I've looked at it there have been untenable plans on how to build one and some strange explanations of how they are supposed to work. Antigravity research, and stuff like that – though there are some odd effects that may be real but maybe mis-explained (such as Podkletnov), there's not any theoretical backing as to what is actually happening.

David Alzofon's pitch was that his dad (Frederick Alzofon) had produced a theory and had done the experiment to prove it, and that it would be fairly easy to replicate the experiment. Red rag to a bull…. Following the links, I found a FB account and challenged him as to why, if it was supposed to be easy to do and was done in 1994, had he not replicated it himself since then…. I got a good reply, too, which was a little surprising and made me dig deeper. Might be worth reading at https://www.facebook.com/alzofonphysics/posts/2091923361055038 . It's public, after all.
Fred Alzofon worked with some interesting people, and also wrote a letter to Einstein about his extension to the Special Theory of Relativity (STR) to explain gravity. Einstein died a month or two after that last letter, so he never got a reply that we know of. This explanation is in fact compatible with QM, whereas GTR isn't. Fred also published a lot of peer-reviewed papers in other subjects and from what I've seen was brilliant and well-respected (he died in 2012). Only in this one idea did he meet a resistance to even consider it.

I'm waiting for some of the papers to arrive, and so any explanation of the theory I could give at the moment would likely be wrong in places, but the main result is that by removing the energy from the field around atoms we can remove both inertia and gravitational attraction. The local field energy is removed in much the same way as adiabatic magnetic cooling – in this case we're using a combination of a magnetic field and microwave radiation to align the nuclei, then allowing the randomisation of the nuclei directionality (by the field virtual particles impinging on them) to "cool" the field by removing that energy from it. The system used to do this experimentally is Electron Paramagnetic Resonance (EPR) – somewhat expensive if you want to buy one. Some similarities to Nuclear Magnetic Resonance (NMR), but since we're dealing with the electron orbitals and using them to affect the nuclear orientation the frequencies are a lot higher, up in the GHz region rather than the MHz of NMR.

The 1994 experiment suffered a bit from needing to be done secretly and at almost-zero budget, and would be insufficient to convince any sceptic. It is however sufficiently convincing that it seems worth replicating and improving on the original data-collection to see if the effect is really there or whether it was some strange systematic error. The interesting point for me was that the predicted initial spike in weight was followed by a drop at each successive pulse of microwaves. The sad thing here is that the equipment messed up when more than 2 pulses of microwaves (each 3-8ms long, with 6ms being close to ideal) was produced, and so the data shows a weight loss of around 0.1% over the first 25ms or so followed by a rise back to normal over the next 25ms or so. Since Fred avowed that an 80% loss of weight had been achieved, I presume that this was seen before they found that the data collection screwed up with more than 2 pulses, so he never had the printout of that measurement to confirm it. The pattern of the weight-loss does imply that the theory is probably correct, even if the data isn't really that good.

My own attitude to antigravity has been much the same as Fred experienced, except that after 1994 Fred had some data to back his theory so I'd have listened and asked questions. Though Fred's theory isn't compatible with GTR (and is thus heretical), it takes as a base the STR and extends it in a way that is compatible with QM, removes those annoying infinities in gravitational calculations, gives a basis for the wave/particle duality, removes the zero-point field and it's untenably-large amount of energy we can't detect, and, maybe more importantly, has at least some experimental verification. It may also provide a reason why Unruh waves (or something like them) can give us Quantised Inertia (Mike McCulloch's theory that replaces MoND and predicts various cosmological anomalies that are experimentally verified). Could be that things are coming together and will give us a new perspective on Why Things Work.

This looks like a job for the Crackpots, and so once I'm far-enough along on the CoM problem that I can pass it on to people better than I am at making it, it looks like the next thing to research. With CoM, it's far-enough out from what people believe that I need some solid experimental evidence that people can measure for themselves, but the principles are simple enough that, once given the evidence that it really is possible, any engineer could make one. The Alzofon Drive, on the other hand, needs taking further since no-one would accept a meter reading of weight-loss as proof – the thing has to fly.

For those who find their interest has been piqued, David has a book out – “Gravity Control with Present Technology” by Frederick Alzofon. There’s also a 1981 paper behind a paywall at https://arc.aiaa.org/doi/abs/10.2514/6.1981-1608 if you find a bit more interest. Be aware though that Fred’s papers are somewhat difficult, and will take a while to understand. There is a Vixra paper at http://vixra.org/pdf/1007.0008v1.pdf if you want to get a feeling for the theory.
I’m not going to speculate as to whether the various UFO stories are true or not. They could be true or they may be mis-identification. If true, they could be some Earth-based military tests or they could be alien visitations (Little Green Men (LGM)). People can have pretty-realistic dreams, after all, and given the prevalence of UFO stories then people would be likely to converge on the descriptions. Ken himself has seen some pretty strange stuff in the deserts on his trips to fix cell-towers. Just over a year ago I saw a blue-green light pass over here while Phil was here. Not enough time to call him and Anna out before it disappeared behind the trees, and I have no idea of size or speed since it was dark, but it made no noise. Since I do get airforce jets over here fairly often, I’d be unlikely to mis-identify one of them (they are pretty noisy and the light is orange). UFO by definition since I couldn’t identify it…. Fred Alzofon’s theory has been out in the open for 37 years, so it’s possible someone here on Earth actually built one. If, of course the theory is correct….

It looks to me that the experimental verification shouldn’t be too difficult or expensive, since I have a few of the necessary bits here already. It’ll take a while to understand the EPR techniques and to build the extra bits of kit needed, but the material for the sample to test is available (5N Aluminium and 4N Iron) and just needs assembling in the right format. Like most crazy ideas, it’s a gamble as to whether the theory is near-enough correct to actually work, but this is the sort of thing that academia can’t afford to touch since, though a success would be great and bring much kudos, a failure would destroy careers. As such, it’s down to the crackpots and garage experimenters to play around with it and see if it’s real or not. Looking at Fred Alzofon’s other work, I think there’s a pretty good chance he’s right.

Update since John pointed out that the FB conversation may be inaccessible to some people. Yer ’tis:

Simon Derricutt David – Although I haven’t read the book yet, so I haven’t any solid details of the underlying principles or the mechanisms that need to be made, the way you describe it implies that the device should be fairly simple to make. Use a magnetic field on Aluminium (or maybe Al-Fe alloy) and hit the Larmor frequency with the microwaves. Given that high-power microwaves will normally be produced using a magnetron and thus not that tunable, that likely means tuning the magnetic field instead. I’m thus maybe somewhat surprised that you haven’t yourself built some devices and tested them. For such an invention, with the obvious value, it seems you’re asking for others to believe it where you yourself haven’t the faith in it to invest the time and money to investigate it yourself. Shawyer had an idea for producing thrust, and produced the EMDrive. NASA have tested that and have built their own devices, so all it needs to get NASA interested is a physical device they can test. Even though the measured thrust is down in the μN and mN range, they are working on it.

I found out about this from the Energy Science conference, where you’re giving a talk shortly. If you analyse most of the others also giving talks there on Free Energy, you’ll see they can’t prove their devices actually work but keep on talking about theory. In order to get peoples’ attention, you need to have a device that physically demonstrates that the theory actually works.

Dr. Frederick Alzofon
Dr. Frederick Alzofon Simon: Thanks for your questions. Shawyer’s device has nothing to do with the technology described here, and the circumstances surrounding its development are quite different, from the theory behind it to the results obtained by my father’s technology, which are quite dramatic, exactly as predicted.

If you had read a little closer, you might have learned that my father did build an experimental device and test it in 1994. The test results and the experimental conditions are described in the book. The experiments were successful in reducing the weight of the test object approximately 80% in a very brief time interval (limited by the equipment).

The experiments had flaws that precluded publication, but didn't change the conclusion, namely that it worked. These flaws are described in the book, not as a confession, but as suggestions for improvement in the future. The experiment was poorly financed and, having conducted many experiments in the past for well-funded agencies, such as the cyclotron and Lockheed, my dad was well aware of the flaws.

The most significant thing about the experiments, besides the dramatic loss of weight in the sample, was the profile of the weight loss. This is a little hard to describe, but the weight spiked upward momentarily before plummeting downward. Also the weight loss was cumulative. These two features are predicted by the theory.

As for the rest of your comment — how I should build it myself, or more properly, how my dad should have rebuilt it himself (somehow research institutions are left out of your remarks) sometime after 1994 — that wasn't possible. The most essential part of the supporting equipment was an EPR (electron paramagnetic resonance) device with a street value of $180,000 in 1994. A similar device custom-built by JEOL would have been $250,000 (I researched this in 2000). The EPR was taken back by the university after the experiment, so other than the three dates of the experiments, no public demonstrations were held.

My dad didn't have $180,000 on hand, and declined to mortgage his house in order to raise it, mainly for fear of cost overruns in recreating the device. I spent the years 1994 – 2012 (the year my dad passed away) trying to find investors to back a repetition of the 1994 experiment in Silicon Valley, but my efforts were unsuccessful.

There were a three reasons for that.

1) No physical demonstration device (of course, that was the POINT of seeking funding).

2) My dad was afraid anyone he described the technology to would steal it (not an unrealistic idea), so he would not talk to anyone about the experiments unless they would sign a nondisclosure agreement.

3) Nobody would sign a nondisclosure agreement for fear of legal entanglements, so I never got to open the books on the experiments to anyone.

The absolute worst moment of this Catch-22 came when I talked to Steve Jobs about it (I worked for Jobs briefly at NeXT). This episode is described in the book, but essentially I was hamstrung in that conversation and all others.

After my dad passed away, I did something he would have absolutely disowned me for: I took the experimental proposal to academia, but this time I said that there had been a successful experiment. I did not describe the apparatus, because I wanted to be sure there was an interest first.

It didn't matter. Not a single physics department I contacted — and there were a lot of them — even replied to my inquiry. Not a word. You really have to experience something like this to believe it. If you haven't experienced it, you haven't got a clue how the world works, but the Air Force analyst who rated my father's gravitation theory as the only one in the world that was capable of producing an applied technology in 1960 prophesied, correctly it turns out, that no academic institution in the world would let it in the door, let alone research it. They would sooner die than allow that. Why? Read the book (the Air Force report is in the bibliography, but the analyst's remarks were in private conversation).

His prophecy has turned out to be even more accurate than my dad ever believed, and he understood better than anyone the reasons why it was true. Based on my own experience, it is more true now than it was in 1960. Sixty years have gone by, and academia has done absolutely nothing about the theory or the technology, other than ignore it. On the rare occasions when an academic would debate the theory with my dad, they lost — badly — and scurried away. In my opinion, which is well supported by experience, their vestment in the GTR, which the theory skirts, is too big to allow them to view the UFT objectively.

Around 2014, I realized that I would never get anywhere with academia, so I turned to industry — all of the civilian space companies, and I mean ALL of them. Their response was the same as academia. I never got a single reply. Not a single conversation eventuated in more than a year of effort and countless hours of writing.

Then I went to Hollywood with the offer to produce a documentary that would culminate in a repeat of the 1994 experiment. They would get a publicity wave from that the likes of which they'd never seen, plus years of follow-up documentaries. Never heard a word in response. I doubt very much that anyone who read my proposals understood a word of them.

You see, it's not WHAT you know, it's WHO you know. Attention spans are limited to about 30 seconds, and pedigree, I've found, means everything. Well, who determines the value of a pedigree? Experts. And who are the experts? The same people who won't let the theory in the door. So it's a Catch-22.

As my dad found after 1981, and I found out for myself from 1994 to the present day, mere mention of "gravity control," let alone "antigravity," is enough to kill the discussion immediately. After those words come up, any listening that goes on is merely to humor the speaker. That is, me.

Finally, I wrote the book, with the idea of calling attention to the technology so that someone — a gypsy engineer such as you, perhaps — would set up the experiment in their garage, touch off the revolution, and win a Nobel Prize. I don't have the money or the expertise or access to a laboratory where the stuff is sitting on the shelf, or I would do it myself. Hell, I've been trying to do exactly that for almost 40 years.

The technology went on the public record in 1981. It is now prior art, that is, non-patentable. Is there money in it? Yes (read the book). My dad's patent application was turned down in 1981 for reasons that no-one, including his patent attorney, was sure of. It has been out in the open where anyone could take a shot at a Nobel Prize with it for 37 years. It is entirely possible that someone has. But if so, it is lurking around in a black vault somewhere. That's not where it belongs. This is all public information and it would transform the world favorably at a time when that is exactly what we need.

If it had happened forty years ago, we would be in an entirely different condition from what we are today. The current matrix of technology, which deeply affects cultural assumptions that in turn affect allocation of resources, is producing a "down-the-drain" effect. That's the reason I wrote the book without any thought of personal gain. In light of the environmental threats we face and the potential of the technology to improve life here on earth and open the space frontier, the way that my dad's work has been ignored is symptomatic of institutional insanity.

The rest of your "questions" might have been answered by my response, but I'm more than familiar with remarks such as yours and I know that I'm probably wasting my breath. What I've written here, I've written for the benefit of people who come across this Facebook page on a random search and might be wondering the same things, but differ in the attitude they bring to the table. That is, they don't already have the answers before they ask the questions. If you're really curious, buy the book and you will understand exactly the impasse that has blocked this technology from coming out for close to 40 years.

Am I "sure" that it will work? Scientists don't talk in absolutes. As I say in the book, I think there's a high probability that a repeat of the 1994 experiments, especially with design improvements, will bring about a similar result. Based on my father's track record in other experimental work, his depth of knowledge, the corroborating evidence from other experimental work, and his adherence to the scientific method, I would say that the probability of success is in excess of 90%.

Investors, I found, wanted nothing short of 100% certainty. Unfortunately, that doesn't exist with new technologies, even if they are based on well-known science. That's why this experiment belongs in a research university, where it could be done relatively cheaply with off-the-shelf equipment. Based on past experience, that won't happen, so I am pessimistic about the future. But as I say, there is a possibility that an offbeat investigator with funding will do it. That's what makes putting this message out there worthwhile.

Simon Derricutt David – thanks for the long reply, even though you seem to have little hope that I'd read and understand it. Though the book you mention is out of stock, there are a couple of others around (Top Ten Riddles, and Gravity Control with Current Technology) that are actually available, but may take a while to come so I can look at the basics. Looks like the second one may have the theory in it.

You have answered the reason why you haven't replicated it, and the EPR is something I don't know about so I'll need to find out what it is and how it works. You never know – something that does the same job might be made on a shoestring budget.

Simon Derricutt Hit return accidentally….

I do understand the Catch-22 situation. I've been working on some things that are very much against the standard theory I grew up with, yet have a logical basis. GTR is shown to be not quite right by the clock calculations in GPS positioning, where a few nanoseconds out can give a large displacement on the ground. The underlying rules of how things work may well be different than we currently think – look up Mike McCulloch's MiHsC theory, which implies that gravitational attraction and inertia are not always equivalent, but that inertia is quantised. I have shown that momentum is not actually a conserved quantity (see http://revolution-green.com/conservation-of-momentum/) and so, since it seems no-one believes that, I need to prove that with a physical device that demonstrates it unequivocally. Since this principle is what I think the EMDrive works on, but that the design is not ideal, that should be useful.

I'll do the reading when the book arrives and see if there's a sneaky way to achieve the same result.

Simon Derricutt Incidentally, these days it's a lot cheaper to get to high frequencies, and if we can run EPR with around 6GHz rather than 9-10GHz, maybe that part is do-able.

Dr. Frederick Alzofon Simon Derricutt Gravity Control with Present Technology is the current volume on the science. I wasn't happy with the first edition for reasons I state in the introduction to GCwPT. It has everything in the first edition and more.

Dr. Frederick Alzofon Simon Derricutt There is a proposal dated 1989 in the GCwPT book for construction of an experimental apparatus that does not require an EPR. Essentially it's a homemade EPR. It would still cost thousands of dollars (there's an estimate in 2017 dollars in the book). The EPR was itself a shortcut around all kinds of problems that might arise with a homemade device. I strongly recommend Jeffries' "Dynamic Nuclear Orientation," 1963 Interscience publications. The gravity control mechanism is analogous to a well-known cryogenic procedure that produces temperatures close to absolute zero (it's been around for 80 years or so), but gravity control uses pulsed dynamic nuclear orientation to effect the "cryogenic" process at a subatomic level. Mind you, it is ANALOGOUS, not literal. In the new book you'll find a "gravity made simple" chapter that I think makes a good orientation for the whole theory. There are all kinds of levels of discussion in the book so that it can reach the broadest spectrum of readers. That includes my dad's final unified field theory paper, which was never published. It's postgraduate stuff, but I think most physicists will get it if they do a little backup research on the background material. The "Gravity Made Simple" chapter is superficial, to be sure, but it prepares you for the complex, mathematical theoretical stuff in the "deep" papers, which means the 1981 AIAA paper (available online) and the "Unity of Nature" available from Physics Essays. I can't send those out without violating copyright, or I would have provided them, too. They are way, way over the head of most readers. Unfortunately, the reprints are expensive, but you might be able to get them through a technical library. One of the difficulties with the 1994 experiment was the equipment: It was all analog. Digital equipment should make it much more doable today, but I do not have the expertise. You will need the help of an electrical engineer (if you're not one yourself), preferably with expertise in microwave science and technology.

Simon Derricutt David – I used to design electronics boards for Xerox. The higher-level maths that I suspect your dad was good at is however not my forté. Because of the CoM work, I've recently been studying waveguides and RF theory, which I'd never needed to know before. You probably know that RF design is a somewhat black art, and that experience is needed to do it well. I aim to be adequate enough to prove the point and then pass it on to a group of competent

people. Providing your dad explained the maths rather than put a wall of equations, I'll probably do well-enough at understanding what he meant.

Note that "temperatures close to absolute zero" is really just stopping things moving, since the temperature is ill-defined when we have a set of available energy-levels. I've also shown that 2LoT is not absolutely valid, since the energy movements are random (just as the theory says, in fact) and a charged particle will be affected in non-random ways by an electric or magnetic field. The physical device to demonstrate that needs either sputtering kit (cost $80k from China) or fab runs at around 5k euros/shot. Building sputtering kit cost around 1k euros all told, but I still need extra measuring kit and purer materials in order to achieve the structure I need. It can wait a bit….

It's possible your dad's work is as important as you think it is, but getting people to listen requires something that can be demonstrated to the investors. These days, few people invest in ideas that might work, but mostly things that can be proven.

Dr. Frederick Alzofon Cryogenics is only an analogy, Simon. My dad cited a gas kinetic model of the gravitational field, with random electrodynamic processes taking the place of random molecular processes, in the 1981 paper. The CRYOGENIC process is an order-disorder transformation technique that removes kinetic energy from the random molecular motion we call "heat." Gravity control is an order-disorder transformation using dynamic nuclear orientation to give a directional property to random electrodynamic processes surrounding elementary particles via their magnetic moments. I'm not talking hypothetical science here; this is proven. Appendix B of the book contains a succinct description of the process. So does the 1989 proposal, with calculations giving the exact energy removed from the gravitational field with each pulse and relaxation period. The gas kinetic model of gravitation is strictly an ANALOGY, not a literal, point-for-point parallel to what is actually going on at a subatomic level. He had a somewhat unique view of the structure of elementary particles based in part on his work at the cyclotron and later research. This is covered to a degree in the book. The 1981 paper contains more. He would never put up a "wall" of mathematics deliberately. He was simply satisfying the requirements for a scientific theory on this subject, as defined by advance physical research. The "Unity of Nature" paper, for example, contains nothing but closed form equations, as I recall. That is one of the virtues of the UFT. It is an extension of Einstein's STR and makes many of the same predictions as the GTR while at the same time solving many of the problems in modern physics, such as the wave/particle issue and the infinities of the Coulomb-type laws. He substitutes a "roving field," or "gespinstfeld" for the point particle, which sidesteps many difficulties. He reinterprets the Heisenberg uncertainty principle and the quantum electrodynamics as well, creating a great simplification. As for creating a device, I'm ready to do that as soon as I get the funds. A lot of people can make the same claim. I'm in no way essential to completing the last damned one percent of the work my father left 99% completed. That last one percent has consumed 24 years and counting because not one investor has had the guts to step forward, preferring rather to invest in such glamorous things as "electrogravitics" and the microwave propulsion system you described. All new technology must pass through a transition phase between drawings and equations and material objects. My dad's technology made that step once already. It's time to make it again. That's all. No big deal. Just a matter of courage.

Simon Derricutt I missed this reply earlier. Could be important information, though I'll need to read the book. If it's random electronic processes, and they can be de-randomised by application of the right field, that corresponds to the ability to de-randomise thermal energy of electrons by use of an electric field, which is the loophole in 2LoT. Last essay on that at http://revolution-green.com/the-paradox-of-energy/ if you're interested. I feel the wave/particle issue can be solved using Bohmian mechanics, but this also may be compatible with your dad's work. Coulomb infinities (and gravity infinities) are simply a model problem where we use non-physical point particles. Nice if there's a reason for the HUP rather than it just being a rule. Any news on Fermi statistics and the Pauli Exclusion principle? That one really is hard to explain. It just is.

The microwave propulsion system may supply the funds to do the rest, so don't knock it too hard. The EMDrive is being tested by NASA, so a better design may be as well. I find it a bit odd that no-one has noticed the flaw in the derivation of CoM over the years, but again maybe it wasn't

believed. The force easily achievable can be calculated on the back of an envelope, after all, so it's not as if it's not in the old textbooks but just somewhat small to actually measure. Multiplying that available force is also pretty obvious.

Science seems to have often been held back by the beliefs and disbeliefs of those holding the purse strings.

Dr. Frederick Alzofon As for random electrodynamic processes, we are talking about creation and annihilation of charged particles on a subatomic plane. Such particles have an exceedingly brief duration, on the order of two billionths of a second, but during that time they have magnetic moments. You might think about them as a blizzard surrounding elementary particles. With dynamic nuclear orientation, you can align them by angular momentum for their lifetime duration, and any new ones that come into existence for that time period — about .06 seconds — will also be oriented. Beyond this, I think you should read the book. It explains the subject in several different places in my dad's language, not mine.

By the way, my dad used to work for NASA — Earth Resources Satellite, Houston — so reading about the EM drive project really got me steamed. It reminds me of an incident that illustrates the nature of bureaucracy, in which, as a general rule, protection of status is more important than life itself. Going back to the year 1986, shortly after my dad retired from Boeing, the moment the Challenger disaster went down, he knew what had happened. Here's why: In the 1960s, he had developed a technology — IRNDT (Infrared Nondestructive Testing) — while he was at Lockheed. It was just one more technology they said was impossible ("How are you going to sort out all that data?"), but he did it, and he proved it via experiment with the optics and computers of the time. There was a moment a few years later on in the history of rocket motor testing when he participated in a panel. The subject was testing. There were two competitors for the contract: X-rays, which were the standard, and infrared, the upstart that he had invented. There was supposed to be a debate. But there was a Dr. Strangelove type at the head of the panel, smoking a cigarette Eastern European-style, and the sum total of the discussion was as follows: "It vill be X-ray. Next subject." My dad warned them that X-ray testing would miss flaws in the O-rings, among other areas, but of course they didn't listen. When the Challenger disaster occurred more than a decade later, he called up NASA and said, "I can set up a testing system that will avoid this kind of failure in the future with almost 100% reliability." Their answer? "Thank you for your interest, but we have it all under control." This is the real world of project financing. NIH is in full force at all times and it is far more powerful than anyone acknowledges, unless they've actually had to deal with it.

Simon Derricutt David – that book should be here in 4-8 days. Nice bedtime reading…. I'll see if I'm competent enough to understand it, then see if can be cheaply applied. No promises at this point.

Dr. Frederick Alzofon Please read the DISCLAIMER. It worries me when people start putting money down on a project. But if you can afford it, more power to you, and may you reap the rewards. In my opinion, if, say, 15 researchers were to go to work on this simultaneously, one of them would win the Nobel Prize, but ALL of them would be able to start aerospace companies and begin filing hundreds of patents. There's a lot of research to be done on the exact embodiment of the technology. For example, it is essential to prolong nuclear orientation at room temperature and up. The 1994 experiment did manage to do it at room temperature, which had never been done before. They used the properties of aluminum27 to do that. The Fe "alloy" you mentioned is NOT an alloy: It's nano particles embedded in very pure aluminum. They are used as leverage to control the paramagnetic aluminum nuclei, which can store a lot of nuclear orientation for prolonged periods. See, I'm giving away the secrets of this stuff — but not really — all of this was in the 1981 paper and four other publications in the ensuing years.

Dr. Frederick Alzofon Aluminum is ideal because it makes great structural material for aircraft. The patentable material will be developed by research: new molecular configurations to prolong nuclear orientation, for example, or precise deployment of electromagnets within the hull. The hull design itself, the control mechanisms for the craft, the power source, the secondary propulsion mechanisms (it is a two-step process) — all of these will be patentable. Just think how many patents roll down the runway on the back of every 747 that flies. The same will be true of gravity-

control vehicles. In the book, I calculated a price tag for a new aerospace corporation that could properly develop the technology: about $20 million. This is based on the price tag for a similar startup in the 1980s, plus about 25% for added infrastructure, equipment, and legal help. The advent of this technology — which everyone says can't possible work — will touch off legal wars that will last a hundred years, I'm afraid. Right now, it's wide open.

Simon Derricutt David – I think we're approximately the same age, but I have the advantage of being retired so my time is free. I'm also good at making things cheaply. AFAIK there is only one stable isotope of Al, so 27Al being specified is fine. Getting the nanoparticles of Fe in there is bit trickier, but maybe it also works with sub-micron layering, since I'm presuming that the Fe is only being used to control the magnetic field. There may be other ways of achieving those qualities. For me, the first part is understanding the principles, and the book is still a week away.

Dr. Frederick Alzofon iron and aluminum have different melting points, so seeding the aluminum with iron particles is not as difficult as it may sound, though it's definitely a job for an expert metallurgist. Creating the sample was one of the most expensive parts of the experiment in 1994. Function: Iron is leverage because it interacts strongly with a magnetic field and it will be close to the aluminum nuclei, which are paramagnetic and don't interact as strongly with an ambient field. The Fe nuclei will precess in alignment with the field and some of that will transfer to the aluminum nuclei. The magnetic field is strong and constant — about as strong as a NMR device. Then a microwave pulse will be delivered at right angles to the axis of precession, at the Larmor frequency. This will cause the iron nuclei to precess so violently that they will flip over. Some of the magnetic moment will transfer to the aluminum nuclei, and they will flip over too. In that moment, the virtual process clouds of the elementary particles becomes oriented. The microwave field is shut off at that point, and the earth's gravitational field works to randomize the virtual process cloud of the elementary particles in the sample (or the hull of the ship, if you have built one). This saps the energy of the gravitational field. The process repeats, and as it is repeated, more and more energy is removed from the Earth's gravitational field. There are some exact calculations in the proposal that seem to have been supported by the experiment. Also, you will understand why the sawtooth pattern is so important. Since the aluminum atoms are paramagnetic, there will be no permanent or residual magnetism, though one trial of the experiment seemed to indicate that there was some residual magnetism in the sample for a brief period of time. You'll have to look at the trials. Also, if you do this experiment, you will be following in the path outlined in the chapter "The Future of Gravity Control." My dad outlined a three-phase development plan. Phase I was "Proof of Concept." If you can show that you are controlling gravity in a reliable fashion according to the theory, it will be a tremendous breakthrough. Well, from my point of view, of course, the breakthrough occurred in 1994. But you will have no trouble financing Phase II, construction of a drone. Phase III is a manned vehicle. I provided illustrations of each phase, though the design is really up to you — the artwork is just there to inspire. As for cost, I said in the book that since 1994 some of the equipment has become modular, and all of it has gone digital, so it might be possible to do the experiment for a lot less. That's your area of expertise. Finally, I'd like to advise you not to be convinced by adverse reports that may come out about the technology in the future. There's nothing like that now, but if certain interests decide they want to put the brakes on this, they could easily manufacture reports that it doesn't work, or that it only works if you use high voltage, terribly expensive equipment, ruby crystal lasers, plasma tubes and that sort of thing, and get some very impressive names to sign on. Similar things seem to have happened in the case of cold fusion, though I don't know what the truth was there. I only know that a campaign of derision ruined the career of the experimenter and stopped all research in that area. If such reports were to come out, it would be very difficult to convince anyone to continue with this project. It would be most unfortunate, but I can't think of a way to counter such a campaign.

Simon Derricutt David – Cold Fusion is actually alive and well, though there is still no accepted theory as to why it works. Research into the practical side may shortly produce data that mainstream science can't ignore, and in fact there has been evidence (correlation of heat and Helium) that shouldn't have been ignored. The problem is one of belief. The energy-levels in a lattice with a multi-body interaction are not the same as in a plasma where you are only dealing with a two-body interaction, yet people complain about the lack of nuclear radiation as if that is proof that it can't be nuclear. Long story….

I suspect that the sample can be produced via a sputtering process and very thin layers. Cost is thus minimal – just takes time. There may be other alternative methods of making the sample, and I'll do some thinking once I've read and understood the data. Of necessity, the initial experimental proof will be a shoestring operation. I also won't be starting on the work for a few months yet. Not only do I need to understand what needs to be done, but I also have the CoM work to get completed. Whereas gravity control would be useful where gravity is strong enough, CoM violation will work far from planets and is thus needed as well. It's interesting that inertial mass and gravitational mass are different and can be separately manipulated, but both manipulations are needed. I don't know if you've read the essay on CoM violation and follow the logic. It is obviously crackpot and will remain so until absolutely proven.

Simon Derricutt Similarly, gravity-control is obviously crackpot until proven. We'll need to find the amount of force that can be produced, since simply reducing gravitational attraction still gives the remainder to counter if you need to hover a drone. Since we will probably have to prove that it's not simply diamagnetism producing a lifting force relative to the lab kit, a free-flying system will need to be shown. After all, a frog can be levitated diamagnetically. It's going to take a few years to achieve that free-flying system even if things go well. One nice thing is that I know some interesting people, but before they can be involved we have to be sure we aren't fooling ourselves as to what is actually happening. It's way too easy to get measurements wrong, so I'll need to send stuff to friends to test.

Simon Derricutt
Simon Derricutt Incidentally, the money side of things and possible personal gains isn't much of an incentive. Those arguments come in useful when selling the idea to investors, and that won't be my job. It's of course quite possible that I won't be able to understand the theory and thus won't get anywhere with the experimental proof either. I suspect that you don't feel you understand it fully either, given the comments on the Vixra paper. No problems – some things are simply too hard for normal people. I'll however ask for explanations later when I've read the papers. Discussions may clarify things if we understand different parts.

Dr. Frederick Alzofon
Dr. Frederick Alzofon Just as the cryogenic process produces temperatures below one degree Kelvin, it is anticipated that the gravity control process will produce zero gravity and, interestingly enough, zero inertia. My dad predicted that after the pumping process had reached a certain point, weight and inertia would plummet to nada, zip, zero. The beginning of the cascade was observed in the experiment. The rapidity of the effect and its total extent depend on energy input and other engineering factors. It is difficult to maintain nuclear orientation in spatial extent, but there are ways to conduct orientation from the central source to the hull without blasting everything with microwaves. The ideal hull would be the shape of two radar antenna stuck together face-to-face. In other words, a saucer shape. Other designs using axial symmetry would also work, such as a sphere or an equilateral triangle. As for convincing evidence, you are quite right, but that is why the saw-tooth pattern was so important: it was predicted by the theory. Nothing floated in the experiment — and everyone seems to focus on that. But it was far, far more significant to get the instrumental data that appears in the book. You'll see when you get it. By the way, did you order it from Amazon UK or some publisher in Europe? There was a sudden spike in sales yesterday and I'm concerned about it. I mean, it's good news from one vantage, but a bit odd from another. Cheers.

Dr. Frederick Alzofon Simon Derricutt If you can create a massless state in a space vehicle, then the effect of photonic drive or microwave drive will be greatly exaggerated. Also, the theoretical cap on speed — namely, c — is not what it seems to be. My dad gave a lecture on special relativity and the speed of light to the American Association of Physics Teachers in Guelph, Canada, in 2003, and it was well-received. In it he explained why the speed of light is an apparent, not a real barrier. He had more expertise on the STR than anyone in the world, I believe. This isn't hero worship — I saw it demonstrated many times in papers and in his refutations of arguments of other physicists. He learned the STR from Victor Lenzen, whom Einstein praised as a leading expert in his — Einstein's — theory. You will find a chapter on the STR and UFT in the advanced material in the book.

Simon Derricutt David – the “pumping” idea seems somewhat odd. I’ll need to see it happening. However, there is an alternative space-drive system (see https://neolegesmotus.wordpress.com/2015/06/12/the-electromagnetic-non-newtonian-propulsion-or-pnn-e/) where that progressive loss of gravitational attraction is stated to happen. Their starting-point seems to be totally different, but then they are keeping the internals secret so I don’t know. They are however using microwaves. I had analysed that as creating a field and then pushing on it, but of course though that would work it may not be what they are doing.

Note that I’m old enough and have been bitten too often to simply believe what instruments tell me, so I require some alternative method of confirmation that the instruments are telling the truth. If I can’t get something floating, I’ll suspend it from a rubber-band and see if it rises. Even then if the sample is inside a container then there may be alternative reasons, so making an undeniable demonstration requires more effort than simply showing meter readings. It needs to convince people who really don’t want to accept it.

I did mention your book yesterday on R-G and that I’d bought it, but I doubt if that had any effect. It’s possible that others also noticed your talk next week and had the same reaction as I did. As you may have realised, I’m somewhat hard on the standard run of Free Energy ideas, since they’ve been proved so many times to not actually work. If we want something that actually works, then we need to do something substantially different from the old failed methods. Your dad’s work looks to be that. There might be a tie from it to Mike McCulloch’s work on quantised inertia, too.

It seems you agree on the need for a drive method even if inertia is removed. I hadn’t thought initially of using them together. If inertia is zero, then c would no longer be a barrier, either. Given that explaining inertia was the reason for postulating the Higgs field and boson, since the Standard Model couldn’t explain it otherwise, then there’s maybe a route to making SF real. Too soon to get excited about that, though – let’s get the first steps sorted out and get the data.

Dr. Frederick Alzofon You’re quite right — as stated in the 1981 paper and in numerous places in the book you’ll be getting, reduction of gravity and inertia is only part of the propulsion scheme. As for the other speakers at the Energy Conference, I will know more after I return, but when you get the book, you’ll see there are many, many differences between my father’s work and the rest of the world, from the Ivory Tower on down. I don’t know what the others are doing, and I will refrain from praising or criticizing them until I know more. It isn’t up to me to comment on their work — in fact, they are working in completely different fields from my father. I’m eager to meet them because I think we share a common hope for humanity and transformation of the world for the better. One factoid: my father’s unified field theory eliminates the zero-point energy of the vacuum, which immediately sets him apart from those who claim to be tapping the zero-point. Feynman didn’t believe in the zero-point energy of the vacuum either, and he praised my dad’s theory for eliminating it. However, my dad did dream of alternative forms of energy — he just didn’t work on them, and it could be that some folks in alternative energy research have succeeded, but might not know exactly why. The UFT might give them that reason and provide directions for further research. My dad had his plate full with a lot of things, of which gravity control was only one. His was a unique approach which should not be judged by any conventional yardstick OTHER THAN THE SCIENTIFIC METHOD. That’s all I would request. When you get the book, read “Chapter 30, Theory Matters!”, which goes a long way toward distinguishing my father’s work from the rest of the field. But again, I don’t see the other speakers at the conference as competitors or even as involved in the same area of research. And let me reiterate that I am deeply grateful to finally have a platform to speak about my father’s work. The conference organizer met my dad in the early 2000s and was impressed, and that’s why I’m on the program — that and the book you’ll be receiving. Academia is where my father’s work belonged from the very beginning, and where it belongs today, but I KNOW it will never be allowed in the door there. They would sooner fall on their swords than permit it, so a different approach must be taken. When you come to a roadblock such as this, you must drive around it. That’s all. There’s no other choice.

Simon Derricutt David – as regards the others in the conference, I’ve known of the work of a lot of them for quite a while and it simply doesn’t do what they claim it should. Experimental evidence –

the principles don't match what actually happens. In their cases, the experiments required to prove the principles are easy to make in the back shed, and so it wouldn't take long to prove if it actually worked. Not the same as your dad's work, where expensive kit and deep knowledge was needed. Your videos represented getting the experimental evidence was easy, which was why I challenged you in the first place.

The reason I challenge the various Free Energy experimenters is that the devices they propose have been replicated by many people, and the result is always the same – it doesn't work. In the course of those challenges though, I needed to check some fundamental axioms and found that there were logical lacunae in them. I also found experimental evidence that confirms that some axioms are wrong and that the standard laws have loopholes. It's a strange thing, but the people doing these "against the law" experiments have the same problems as your dad did in getting the effects accepted. Still, I get in contact when something seems like it might be real and try to find out more. Mostly at the moment these are small effects, but they are anomalies and are supposed not to happen at all. With enough research, a small effect should be able to be magnified to be useful.

As I understand it, ZPE is probably not actually there but is instead a problem in the theory. Nevertheless, the techniques used in the experiments involve Casimlr gaps and so they may see some anomaly from violation of 2LoT, since that is a statistical law and doesn't apply to individual energy transactions but only to an unbiased collection of transactions.

One interesting problem I've found is that the various Free Energy researchers seem to be stuck in the old theories and ideas, and are just as deaf to new ideas as academia. I hope you've read my essays on 2LoT and CoM by now. Obviously academia will not accept them, since I'm trashing some fundamental beliefs. So far, no-one has found a logical error, but anyone is welcome to try. R-G is a sceptic's site, so we should have enough eyes on it. It took a while and several tries before I achieved clarity on the underlying principles, though. It's hard to rethink the truths you grew up with.

It looks like I'm going to have fun with the book. It may take quite a while to understand it well-enough to make something real and demonstrable.

For me, seeing your talk was pure chance, since I don't normally look at flying saucer drive ideas very often. Mostly they are based on some very old (and not shown to work) principles rather than physics. Spinning Mercury, high-voltage discharges and the like. Various plans for saucers, but depending on their principles being correct first, and they haven't tested them in the lab. They are based on hope rather than experimental evidence. Anyway, I'm glad you took this particular route to getting publicity. Say hello to Susan Manewich for me….

Dr. Frederick Alzofon Thanks for explaining the history of your investigations into zero-point energy. I have a crude understanding of the issues with it, but I don't think I have anything intelligent to add so I will refrain from opening my mouth and removing all doubt. The more I comment on it, the more likely people are to conflate my father's work with this subject area, and there isn't any overlap, in reality. I do hope to learn more about it at the conference, but it isn't my primary focus. About my father's research, on the other hand, I have extensive knowledge. I gather you saw a video or two on the AlzofonPhysics channel on YouTube. If I get the time, I will be remaking those so that they coordinate properly with the new book, though by now I've invested so much time in gravity-control that I'm feeling guilty about neglecting other projects. You are correct, I did say that obtaining experimental proof of my dad's theory and technology would be relatively easy, and that is true, but emphasis should be laid on the word "relatively." It would NOT be easy for me or I would have DONE it instead of WRITING about it. On the other hand, it WOULD be easy for any university with a typical chemistry or physics lab, a professor with enough training to understand the theory, and a couple of grad students who could assist in setting up the equipment, which requires only off-the-shelf components in the main. If one considers the millions of dollars lavished on other subjects, most with minimal implications for technology, this would be a small investment of time and effort, with the potential to reap enormous rewards. That's what I meant by "easy." Let me know what you think once you've had a chance to read the book. I value your reactions.

Simon Derricutt David – I watched 4 of your videos. I generally avoid watching videos since a transcript is so much faster and easier to understand, but I thought (since you had intimated it was easy) that you'd show a demonstration. Your definition of "easy" wasn't what I initially expected…. Neither of us has that access to a university lab, and since I'm not an accredited student I can't get that for insurance reasons. I suspect you're in the same position. As such, you either need to persuade a professor or build what is necessary. The first path looks to be difficult to arrange, so we take the second. As I said, it may take a while.

I'll get back to you when I've read the book. May be better to use email at that point. simon dot derricutt at orange dot fr (also published at Revolution-Green). You published your email around 3 years ago on a comment on Vixra, so if it's still the same we have contact and the email gives a better record than FB, where I need to copy/paste into a file. We may also involve a few other people I know.

Currently I can run up to 6GHz at 2W – this should be all that is necessary for the CoM experiments. This may be enough for the gravity experiments, but currently I don't know. EPR systems seem to be fairly low power RF, and I don't know what power-density needs to be achieved yet. Software-defined radio may be able to achieve the pulses needed and can do the sweeps. It may thus be possible to hack something together from fairly standard bits that will do the job.

Dr. Frederick Alzofon You will find detailed technical information in the book. If you find it convincing enough, I suggest downloading the 1981 paper from the AIAA site, or ordering it through a library near you. The AIAA charges $25 per download the last time I looked. I get nothing from that, and in fact I would send a PDF of the paper to you if it were not a violation of the AIAA's copyright. Since the publication of the paper, I believe it's been downloaded less than 200 times, but another way to look at that is that it has been downloaded MORE than a hundred times. It is entirely possible that someone, somewhere has followed up on testing the technology. If so, their results have not been published. I suspect that if they were successful, they kept it to themselves. My dad released the information in 1981 in hopes of setting up a research program with publicly available results. That is my desire, too. The technology belongs to science, not to a special interest group. Also, the "Unity of Nature" paper would be useful. There's a full bibliographic citation in the book. Again, I can't send you a copy because of copyright issues. Go ahead and try that email — I don't remember which one it was, but I do remember making a comment. I'll respond if it reaches me.

Dr. Frederick Alzofon Almost all questions are answered in the book. Please see my discussion of ways to make money in the book. There are so many ways I can't count them — but timing is important. The first to do this AND be recognized will become a "name brand."

Dr. Frederick Alzofon There are many details in the book that will challenge you technically, Simon. Here is a sample, which also explains the "pumping effect," and the rate of weight reduction, though the rationale for this is a lot more extensive:

The constant magnetic field and frequency of the oscillating field can be selected to conform to the values often used in dynamic nuclear orientation. For example, with a fixed magnetic field H = 660 oe, one can employ a pulsed oscillating field of 3000 MHz, with pulses lasting 2 microseconds and a repetition rate of about 6 milliseconds. The cutoff of the oscillating field allows the cloud of oriented "Virtual" photons/particles to diffuse outward from the nuclei of the aluminum specimen, to be replaced by more oriented photons/particles, thus building up the extent, and the gravity-reducing capability of the cloud.

In accord with the model indicated in the foregoing discussion, the amount of e.g. iron, particles inserted into the aluminum metal is not critical, since its effects diffuse throughout the aluminum. There are 2.2 x 10 22 atomic nuclei per gram of aluminum, and each of these is the source of a reduction of about 9.2 x 10 -20 ergs in gravitational energy. This is equivalent to a reduction of 2000 ergs per gram per cycle.

Since these cycles occur at the rate of about 10 4 per minute, we can expect about two joules per minute to be removed and stored in a cloud around the aluminum specimen. In these estimates, the rate of decay of orientation of the latter cloud, as well as the rate of orientation by the

microwave field have been neglected. For the present these rates are unknown; the guiding rule for the experiment to be performed will be to select the experimental parameters so that at least ten percent of the weight of the specimen used is removed. For example, the rate of orientation is proportional to the square of the strength of the microwave field (i.e. amplitude of variation), and this is one of the parameters it is proposed to vary.

Simon Derricutt David – I've found that various antigravity sites have publicised your dad's work. It's thus maybe surprising that no-one has replicated it yet. That could of course mean that it looked too difficult for people to try it, but could also mean they tried and failed. What you state above is however fairly simple to get the kit for – 3GHz chips have been available to amateurs for a long time, and the 5G band being opened now means we have cheap devices up to 6GHz.

One problem may be that the Aluminium is opaque to the frequencies used. May just mean we need to use a magnetic wave rather than TEM mode. Still, all those decisions will need to wait till I've read the book. Note that I'm not going to drop everything and start building right away anyway – the CoM work needs to be finished to a state where I can pass it on to someone better. Also crackpot stuff, of course, and needs an undeniable demonstration before anyone would believe it.

Your dad's unified field theory (the Vixra paper) seems logical, but I need more time on that and more information. That matter and energy are two form of the same stuff is something I've accepted for a long time, and the overlap of mass/energy fields will cause an attraction if the density of the matter field causes time to slow down. This of course means that the QM idea of instantaneous action at a distance must be operational. In that case, what your dad's idea does may be to reduce that probability density of the other matter in the local space. Still, not yet time to speculate why, but we need first to show the effect.

Putting a person in this field seems like it may be fatal. Lots of body processes may depend on inertia, apart from the obvious one of pumping blood. Needs a bit of care in testing….

Dr. Frederick Alzofon I think I've seen the sites that have publicized my dad's work. None of them really seemed to know what it was about. He's just mentioned as someone who worked on antigravity back in the '80s. I will be dubious of reports of failure until I can see what they did. I think there's too much evidence going for this for it not to work (again). I figured digitization would make the parts cheaper. The aluminum has to be very pure or it won't work. The colloidal iron is essential to get the nuclear orientation to penetrate. Yes, the Vixra paper will take some study, but I will bet you can get through it. When you get the book you'll see the subject explored from multiple angles. It will greatly clarify the Vixra paper when you return to it. The Unity of Nature paper fills in a lot of gaps and so does the 1981 paper. Final point on the field: occupants will need protective clothing to protect from microwave radiation, but conduct orientation so they become weightless and inertia free. The exact way the field will work inside the vehicle is to be determined. R&D needed. Never thought about inertia-free blood flow, however. But there's this: artificial gravity can be induced. Yes, by emphasizing the driving part of the cycle, you can increase gravity in a localized area.

Dr. Frederick Alzofon Simon Derricutt One other point: The vehicle won't be completely weightless at all times. Neutral buoyancy is needed for operating within the atmosphere. Landing is an interesting operation requiring a tacking motion that results in a "falling leaf" pattern often observed in UFOs.

Simon Derricutt Good points, David. It's worth noting that most of the people trying to achieve antigravity seem to be not good scientists, which is why I haven't bothered with them. I have not seen any tests of the ideas that are set out there, just speculations.

I'm still waiting for the book, so haven't reached the start-point yet.

Now I've seen what you do for a living, I can see even better why you've tried to get professionals to do the replication. Some things, however, destroy your reputation and may get those professionals kicked out of their jobs, and antigravity is one of them. Also LENR, of course, and certainly the heresy of questioning 2LoT or CoM, so I have no reputation left to destroy….

We may discuss the need for purity of the Aluminium later on. I can probably get 4N stuff fairly easily. On average that gives over 12 atoms of pure Al in any direction before you hit the impurity atom, but until I can get a handle on how the effect really works I don't know if that is good enough. Colloidal Iron will be randomly distributed, leading to local variations of magnetic field as the average permeability changes. There may be better structures available, for example laminar with sub-micron Iron layers. This structure may also reduce the need for purity of the Aluminium. Whereas colloidal Iron will likely have surface layers of OH- dipoles and thus change the electronic structure at the Iron/Aluminium interface, it may be better to have a direct interface. Still, speculations at this point without enough data. Give me a few weeks to get it, read it and understand enough to start. This is doctorate-level stuff, so it takes a while.

Dr. Frederick Alzofon Sounds like you have command of the details that will allow a valid trial of the technology, Simon. I think you'll like the PowerPoint presentation coming up at the conference since it addresses many of the points you mention — the social milieu. One of the first slides discusses the word "antigravity" and what it did to my father's early efforts to obtain research funding. Your emails are a good test of the thoroughness of the book, and so far I think I'm batting a thousand (baseball expression, in case it's unfamiliar). Please give the alternate email address a try. Cheers.

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REVIEW OF THE WORK OF DR. FREDERICK E. ALZOFON
By J. David Baxter

The following article is based on an article in the Jan./Feb/Mar, published October 12, 1994 issue 13, of Electric Spacecraft Journal, and was compiled and reviewed by editor Charles Yost.

Gravity can be regionally modified around an object. The gravity force, on an object, can be modified through the specific use of electromagnetism.

A mass is placed in a uniform magnetic field, and exposed to pulsed, high frequency microwaves, specifically tuned. The atoms in the mass, realign their nuclear spin orientations. This directly affects the symmetry of the mass gravity field. The mass can lose or gain weight. The gravitational change occurs during electron/nuclear orientation and disorientation transition.

This involves a pulsed dynamic nuclear orientation, with a net magnetic moment. The magnetic field is constant. A greater reduction on Earth's gravitational reduction, on the mass, occurs with driven orientations.

The best element to use is a pure isotope of aluminum. The pulsed electric field, in a constant magnetic field, operates at the Larmor frequency. The process involves a microwave source, FM detector, connected to a lock-in amplifier, and a modulation generator.

The orientation of the aluminum nuclei has a much longer lifetime then its thermal decay. With the creation-annihilation cloud, generated by the Earth, and disorienting of the mass nuclei, occurs at the expense of the mean disordered motion of this cloud. Too fast a flipping of dynamic nuclear orientation, would increase a gravitational field. Although, in outer space, the field could be coupled, to a distant gravitational source, and used for propulsion. Radiation fluctuates in intensity on a subatomic scale.

The observed speed of light is an average of many fluctuation processes. These are random fluctuations. There is no sharp division between field and particle. Matter-energy to one particle is transferred to a second particle. At a fixed magnetic field of 660 Oe, a pulsed oscillation can be applied at 3000 MHz. The pulses of the oscillating field for 2 microseconds, with a duty cycle from 2 to 6 milliseconds.

Iron is embedded in the aluminum, and mixed to make it operational at a higher melting temperature. The ratio of iron to aluminum is 1 to 10.

There is 6.3 times 10 to the 4th power of Joules of gravitational energy at the Earth's surface. Substantial gravitational attraction can be removed in several seconds.

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Update 22 July 2018:

Useful downloads and links

Fred Alzofon “New and simple idea” at http://vixra.org/pdf/1007.0008v1.pdf
1995 paper in Physics Essays “Frederick E. Alzofon, The Unity of Nature and the Search for a Unified Field Theory ” at https://physicsessays.org/browse-journal-2/product/677-17-frederick-e-alzofon-the-unity-of-nature-and-the-search-for-a-unified-field-theory.html
1981 paper in Aerospace Research Central 17th joint propulsion conference “Anti-gravity with present technology – Implementation and theoretical foundation”
at https://arc.aiaa.org/doi/abs/10.2514/6.1981-1608
C.D Jeffries “Dynamic Nuclear Orientation”
at https://babel.hathitrust.org/cgi/pt?id=mdp.39015003427351;view=1up;seq=11
James M. McCampbell “UFOlogy”
at http://www.tarrdaniel.com/documents/Ufology/ufology2.html (links to first parts there, and may or may not be truth)
David Alzofon’s YouTube channel
at https://www.youtube.com/channel/UCo3bczmxxXhymhzrwSkaqJA (not updated to latest book)
Relaxation in NMR spectroscopy at https://www.chem.wisc.edu/areas/reich/nmr/08-tech-01-relax.htm
David Alzofon’s FB page https://www.facebook.com/alzofonphysics/
David’s website (in process of being built) http://gravitycontrol.io/
David’s first talk on “Conspiracy Unlimited” at http://conspiracy-unlimited.libsyn.com/ep-089-anti-gravity-science and second at http://conspiracy-unlimited.libsyn.com/092-anti-gravity-part-two (not that relevant to the science bits, but drumming up interest).
Home brew ESR
setup: http://physics.unm.edu/Courses/Becerra/Phys307LSp15/LabGuides/Electron%20Spin%20Resonance.pdf
I”ll add to the links as and when they turn up.