# **Replace Toxic AC Power with DC Power**

The explanations below of subtle high-frequency electromagnetic radiation being medically and biologically more dangerous than stronger signals seem to be highly credible arguments for replacing toxic AC power with safer DC power. AC power is typically loaded with high-frequency transient disturbances caused by switching appliances on and off, for example.

Replacing toxic AC power with DC power would require complete decentralization of our electricity supplies. AC power can be transmitted over long distances. DC power can only be transmitted over much shorter distances. As you will learn below there can be an abundance of smaller generators.

For decades Gary Vesperman has been advocating self-charged electric vehicles (EVs). What he can't quite understand is why it is so difficult to educate people something so simple and obvious as self-charged EVs that are way more practical than electric vehicles that have to stop for a half-hour or more of charging. Even the Sierra Club ignores self-charged EVs.

Electric vehicles that haul around a half-ton or so batteries and need to stop for recharging are truly old-fashioned. It seems reasonable to assume that once EV owners are freed from the hassle and expense of stopping to recharge, there would be no difficulty selling self-charged EVs. Self-charged EVs would only need one or two less efficient safe lithium-free batteries. Switching electric vehicles to self-charged electric vehicles would eliminate stressing already strained electric power grids.

Be aware that some highly publicized energy infrastructure projects such as oil and gas pipelines, long-distance transmission lines, bladed wind turbines, photovoltaic panels, fuel cells, small modular nuclear reactors, hydrogen, electric vehicle charging stations, geologic storage of nuclear waste, and fossil fuels are all obsolete.

Billions are being spent subsidizing electric vehicles, nuclear power, fossil fuels, wind turbines, and photovoltaic panels. May he suggest spending .1% on developing and deploying some of the 40 or so clean new generators profiled below?

The Gallery of Clean Energy Inventions is linked at padrak.com/vesperman.

The Gallery of Clean Energy Inventions displays profiles of 27 Larger Generators, 35 Smaller Generators, 29 Advanced Self-Powered Electric Vehicle Innovations, 29 Radioactivity Neutralization Methods, 30 Space Travel Innovations, 23 Technical Solutions to Water Shortages, and a Torsion Field School Network. The exhibit's seven groups can be displayed on 20 meters of walls or tables.

The new self-charged electric school bus exhibit file has been uploaded into the Transportation Inventions category of padrak.com/vesperman. Its caption reads:

Self-Charged Electric School Bus with Continuous Climate Control Even While Parked. Compressed air-driven vortex tubes are switched between 90% cold air and 10% hot air, or 90% hot air and 10% cold air. Power for the air compressor and electric drive motors provided by one of nine electricity generators. This exhibit was displayed in the September 25, 2021 electric vehicle festival in the Las Vegas Springs Preserve.

These nine generators were cherry picked from the Gallery of Clean Energy Inventions.

To my knowledge all of these self-charged electric school bus inventions are fully validated. To build a prototype would simply need straightforward sweat engineering, sufficient financing to bring these buses to market, and an organized entity with a will to accomplish this task. The Gallery of Clean Energy Inventions includes 13 more generators that appear to be candidates for powering self-charged electric school buses.

To aid your analysis of clean energy inventions the website padrak.com/vesperman links to a list of "Clean Energy Inventions" and the Index to the Gallery of Clean Energy Inventions.

The bottom of padrak.com/vesperman links to my 'grand' invention development business plan. Development of most, if not all, of these futuristic inventions could soak up a billion dollars. But we could end up with a much better world that people may not recognize.

Gary Vesperman 533 Tara Court Boulder City, Nevada 89005-1152 702-435-7947 padrak.com/vesperman

On Monday, November 21, 2022 at 10:22:14 AM PST, Peter Tocci wrote:

Andrew and all,

This is great — up until the end of the first sentence :-)

The rest is de facto propaganda based on the unproven and unprovable notion that an exposure level based on power density can be established for all life forever with studies and testing. This seems literally impossible due to significant, unpredictable, uncontrollable, rapidly changing exposure variability in the field, which cannot possibly be taken into account in the controlled conditions in which studies and testing take place.

Persistence in selling safety level plays into the hands of governments, who are under the thumb of the force behind the industry and militaries that created the heating bias in the first place, to keep this massively profitable eco/suicide going at all costs. But, below heating, "Power Level Is Irrelevant."

At least this outing mentions radiation sources other than wireless telecom/WiFi, although it fails to note the potential deleterious synergistic interactions in the field among radiation from antennas for commercial radio, digital TV, fire, police, as well as mobile phones and base stations. Another article we saw recently noted this phenomenon in regard to chemical toxins. There is an article that puts them both together.

In re "Power Level Is Irrelevant," I'm including part of an email I sent recently to my personal list (which includes local and state - MA USA - politicians). It contains an excerpt from Arthur Firstenberg's Radio Wave Packet PDF (Radio Wave Packet (cellphonetaskforce.org)), a compilation of science papers on the biological impact of microwave radiation. Some of you may have seen.

As much as Arthur and I have argued (as some of you may also have seen) over various particulars, we agree strongly on this point: There is/can be no safe level of exposure to wireless telecom/WiFi radiation, and failure to end wireless especially, if not most sources of "electrosmog," will eventually take down the ecosystem, a process well underway on several levels.

I'm at a loss to do other than attribute the persistence of the scientific community in recommending new safety levels, while avoiding even a hint there might be none, to outside influence having 'infiltrated' the community as a whole, either with individuals of dubious intent rising to prominence, or/and with pressures on status and jobs, such as that which ended the career of Olle Johansson.

Speaking of the heating bias, the title might read "Below Heating, Power Level Is Irrelevant" (strictly speaking it's not, either way, since it's shown that very low power levels can be more impactful than higher ones below heating -:) It becomes critical at heating level, obviously. But a crucial matter avoided by FCC is that very short peaks within the average range may cause local heat. This is, plausibly, the primary motive for averaging over 30 whole minutes.

For your convenience, I'm attaching a PDF of the chart referred to in the first sentence of the excerpt. The substantial list of references it complies is not included, but can be seen at the link in the Packet title above. I violate convention by attaching the chart here instead of at the end:-)

May I respectfully suggest it be incumbent on any/all scientists to review the references against the author's argument, and if it's sound, to summarily end the (futile) quest for 'safety level' and begin to shout the truth from the rooftops, so to speak — especially to the people. Criminalized and puppetized officialdom is unlikely to respond

And once again, I beg for the argument here, and the science papers cited to support it, to be examined and refuted: Giving Life the Electric Chair — The Plain Physics & Biophysics of Phone & WiFi Radiation. I'd love to be able to withdraw the article and say all's well. Better sleep would be almost certain to follow.

I've taken the liberty of adding 3 contacts to the CC list.

Best, Peter Tocci

### Excerpt:

As the chart shows, exposure levels are irrelevant where it concerns radio waves. Biological effects are found at  $10 \,\mu\text{W/cm2}$ , at  $0.01 \,\text{cm2}$ , at  $0.00001 \,\mu\text{W/cm2}$ , at  $0.000000001 \,\mu\text{W/cm2}$ , and at  $0.00000000000001 \,\mu\text{W/cm2}$ .

As Allan Frey wrote, living organisms use electromagnetic fields (EMFs) for everything from cellular communication to nervous system function. "Electromagnetic fields are not a foreign substance to living beings like lead or cyanide. With foreign substances, the greater the dose, the greater the effect—a dose-response relationship." Instead, he said, a living being is like a radio receiver. "The EMF signal the radio detects and transduces into the sound of music is almost immeasurably weak." Similarly, even an immeasurably weak radio signal can interfere with biological functions. (Frey 1990, 1993)

Dr. Ross Adey, at Loma Linda University School of Medicine, wrote that our cells "whisper" to each other with electromagnetic signals. He said that EMFs act at the atomic level and that "a threshold might not exist" for the effects of radio waves. (Adey 1993)

Biophysicist Neil Cherry, at Lincoln University in New Zealand, wrote that radio signals "can interfere with hearts, brains and cells at extremely low intensities, approaching zero exposure" (Cherry 2000). He later presented "conclusive evidence" that "the safe level of exposure is zero." (Cherry 2001)

For some effects, there is even an inverse dose-response, i.e. the lower the exposure level, the greater the harm. In other words, the more the external signal approaches the infinitesimal strength of our bodies' own internal signals, the more it is recognized by the body, and the more it interferes with life.

The following chart was published in 2001 and has been updated to comport with current technology.

## SOME BIOLOGICAL EFFECTS OF RADIO WAVES

Power density (μW/cm2)	Reported Biological Effects	References
0.00000000000001	Altered genetic structure in E. Coli	Belyaev 1996
0.0000000001	Threshold of human sensitivity	Kositsky 2001
0.000000001	Altered EEG in human subjects	Bise 1978
0.0000000027	Growth stimulation in Vicius fabus (beans)	Brauer 1950
0.0000001	Effects on immune system in mice	Bundyuk 1994
0.00000002	Stimulation of ovulation in chickens	Kondra 1970
0.000005	Effect on cell growth in yeast	Grundler 1992
0.00001	Conditioned "avoidance" reflex in rats	Kositsky 2001
0.000024	Premature aging of pine needles	Selga 1996
0.000024	Smaller tree growth rings	Balodis 1996
0.0004	100 yards from a home WiFi router	
0.0017	Decreased seed germination in pine trees	Selga 1996
0.002	Sleep disorders, abnormal blood pressure, nervousness, weakness, fatigue, limb pain, joint pain, digestive problems, fewer schoolchildren promoted—controlled study near a shortwave transmitter	Altpeter 1995, 1997
0.0027	Growth inhibition in Vicius fabus (beans)	Brauer 1950
0.004	100 yards from a 2G, 3G or 4G cell phone at peak power	
0.01	100 yards from a commercial or outdoor WiFi router	
0.01 to 0.1	1 mile from a 2G, 3G or 4G cell tower	
0.06	Altered EEG, disturbed carbohydrate metabolism, enlarged adrenals, altered adrenal hormone levels, structural changes in liver, spleen, testes, and brain—in white rats and rabbits	Dumanskij 1974
0.06	Slowing of the heart, change in EEG in rabbits	Serkyuk, reported in McRee 1980
0.1	Increase in melatonin in cows	Stark 1997
0.1 to 1.8	Decreased life span, impaired reproduction, structural and developmental abnormalities in duckweed plants	Magone 1996
0.13	Decreased cell growth (human epithelial amnion cells)	Kwee 1997
0.168	Irreversible sterility in mice	Magras 1997
0.2	Childhood leukemia up to 12 km from TV tower	Hocking 1996
0.3	Impaired motor function, reaction time, memory and attention of schoolchildren, and altered sex ratio of children (fewer boys)	Kolodynski 1996

0.4	Breakdown of blood-brain barrier by cell phones	Eberhardt 2008
0.6	Change in calcium ion efflux from brain tissue	Dutta 1986
0.6	Cardiac arrhythmias and sometimes cardiac arrest (frogs)	Frey 1968
0-4	Altered white blood cell activity in schoolchildren	Chiang 1989
1	Headache, dizziness, irritability, fatigue, weakness, insomnia, chest pain, difficulty breathing, indigestion (humans— occupational exposure)	Simonenko 1998
1	Stimulation of white cells in guinea pigs	Shandala 1978
2 (lower threshold not known)	Auditory effects—clicking, buzzing, chirping, hissing, or high- pitched tones	Frey 1963, 1969, 1971, 1973, 1988, Justeson 1979, Olsen 1980, Wieske 1963, Lin 1978
5	Memory loss in rats exposed to cell phones	Nittby 2009
5	Leukemia, skin melanoma and bladder cancer near TV and FM transmitter	Dolk 1997
5	Biochemical and histological changes in liver, heart, kidney, and brain tissue	Belokrinitskiy 1982
8	Exposure to Head & Chest from Wireless Laptop on Table	
10	Damaged mitochondria, nucleus of cells in hippocampus of brain	Belokrinitskiy 1982a
10	Impaired memory and visual reaction time in people living near transmitters	Chiang 1989
10	Decreased size of litter, increased number of stillborns in mice	Il'Chevich (reported in McRee 1980)
10	Redistribution of metals in the lungs, brain, heart, liver, kidney, muscles, spleen, bones, skin, blood	Shutenko 1981
150	Exposure to Head & Chest from any Cell Phone on Table	
1,000	FCC's Whole Body Exposure Limit	
17,000	Exposure to Genitals from Wireless Laptop on a Lap	FCC 2018, Racini 2015
20,000	Exposure to Brain from any Cell Phone Against Head	

Thus, Leif Salford's team at Lund University found that the greatest damage to the blood-brain barrier occurred at the lowest dose of radiation (reduced ten thousand-fold), not the highest dose. (Persson 1997).

Numerous researchers, including Carl Blackman at the US Environmental Protection Agency, have found that microwave radiation causes calcium to flow out of brain cells. For this effect, these researchers have found power windows of maximal effect, i.e. the effect decreases at both lower and higher levels (Blackman 1980, 1986; Bawin 1977; Dutta 1986; Kunjilwar and Behari 1993). And it is the lowest power windows, not the highest, that have the greatest effect: the effect at an SAR of 0.0007 W/kg was quadruple the effect at an SAR of 2.0 W/kg (Dutta 1986).

Maria Sadchikova and her Soviet colleagues consistently reported in the 1960s and 1970s that among people occupationally exposed to microwave radiation, the sickest were those exposed to the lowest, not the highest levels. (Sadchikova 1960, 1974).

Igor Belyaev, at Stockholm University, found a genetic effect that occurred at specific frequencies. The magnitude of the effect did not change with power level over 14 orders of magnitude, all the way down to 0.0000000001 microwatts per square centimeter. (Belyaev 1996)

Nikolai Kositksy and his colleagues in Kiev, Ukraine reiterated that external radio signals interfere with our bodies' own internal signaling, and that it is the informational content of radio waves, and not their power level, that causes harm. They reviewed 40 years of research in the Soviet Union and concluded: "Biological effects associated with these interactions depend not on the strength of the energy carried into one or another system, but on the information carried into it." (Kositsky 2001)

Thus most of the effects of radio waves on our bodies are caused not by their power levels but by their frequencies, bandwidths, pulsations, waveforms, and all the other attributes that enable them to carry information and make them useful to cell phones and computers. It is the coherent nature of the radiation and the information that it carries that kills. And therefore light (LiFi) and any other carrier of the same information is just as harmful, as are lasers. A laser is coherent light.

We evolved without microwaves and without coherent radiation. The microwave radiation from the Sun is not coherent, is not centered at any particular frequency, varies in total from .0000001  $\mu W/cm2$  to .0001  $\mu W/cm2$  when the Sun is most active, and we are only exposed to it during the day; at night, only the far weaker microwaves from the stars reach Earth.

Living beings should not ever contact, or be near, any source of coherent radiation, or any source of microwave radiation. Not WiFi, not Bluetooth, not baby monitors, not microwave ovens, and not cell phones. Not even for a few seconds. Cell phones, because of their ubiquity and their proximity to the body, are causing by far the most harm to health, society, and planet.

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On Nov 20, 2022, at 10:22 AM, Andrew Michrowski wrote:

----- Forwarded message ------From: Joel M. Moskowitz PhD

Date: Sat. Nov 19, 2022 at 3:27 PM

Subject: Belgium: Radiation court case against Belgium and the EU – State of Play

To: CHE-EMF (Collaborative on Health and the Environment - EMF) < cheemf@healthandenvironment.org>

Radiation court case against Belgium and the EU – State of Play

Save Belgium, Oct 13, 2022

Our governments are harming us.

The electromagnetic exposure limits in force in Europe amount to a novel form of torture. Electromagnetic torture. The advent of 5G only makes matters worse. Far worse.

How and why do governments harm us?

For reasons of budget and economic development governments stick to an outdated thermal dogma first developed by the U.S. military during the cold war. In doing so they deliberately disregard the manifold biological effects of man-made electromagnetic technology pointed to by independent science.

This is why, in the spring of 2021, we started up a court case against Belgium and the EU.

Our case is not just relevant for people, plants and animals in our own country. As we invoke a range of fundamental rights, our approach is relevant for people and groups in all signature countries to the European Union and/or the European Convention of Human Rights (ECHR).

Our case is not directed against any specific wireless technology but against the totality of our exposure to manmade radiation.

Against all the various radiation sources and frequencies simultaneously in the air because of the government's exposure limits.

In attacking Belgian and EU exposure limits we also aim at the science and the scientists our governments refer to: ICNIRP as well as national and European scientific boards.

We submitted evidence to the court proving the outdated science, the inappropriate composition and the pervasive conflicts of interests at ICNIRP, SCENIHR and national scientific boards which, we conclude, makes those boards inappropriate scientific references.

As against the 'science' of the government, we submitted more than 7,700 pages of evidence proving beyond any reasonable doubt that biological effects of man-made electromagnetic fields are real. Based on this evidence, and alternative exposure limits proposed by the Council of Europe, the BioInitiative, EUROPAEM and the German institute for Baubiologie, we ask the judge to enforce a limit of 0.6V/m.

Legally we undergird this request with three sources of fundamental rights: the Belgian constitution, the Charter of Fundamental Rights of the European Union (CFR) and the ECHR as well as a range of other national and EU legal bases.

As far as EU law and the ECHR is concerned, here are the treaty articles which we invoke:

European Union law: Article 2, 3, 4, 6 and 7 CFR and articles 168 and 191 TFEU

European Convention of Human Rights: Articles 2, 3 and 8

The essence of our legal argument is that by continuing to adhere to the thermal dogma in the face of mounting evidence of serious biological harm caused by man-made electromagnetic fields, Belgium and the European Union violate our fundamental rights. In our view these rights seek to protect people, plants and animals not just from heating effects but also from the biological effects of man-made EMF.

In relation to EU law, we claim that Council Recommendation 1999/519 violates the CFR and should therefore be declared illegal. As under EU law a national judge cannot do that by himself, we asked the court to direct 3 prejudicial questions to the European Court of Justice. These questions read as follows:

Should Articles 2, 3, 4, 6 and 7 of the Charter of Fundamental Rights and Articles 168 and 191 TFEU be read as obliging the Union and its Member States, when drawing up and defining radiation standards, to take full account not only of the possible warming effects of man-made electromagnetic radiation, but also of biological effects of all kinds caused by these radiation fields?

If so, does Recommendation 1999/591/EC infringe Articles 2, 3, 4, 6 or 7 CFR, as well as Articles 168 and 191 TFEU, to the extent that it recommends maximum limits for electromagnetic radiation to Member States that take into account only warming effects and not the many biological effects referred to by independent scientific research?

If so, should the relevant provisions of Directive 2018/1972 be read as obliging Member States, when devising a preventive regulatory framework which provides adequate protection against the harmful effects of man-made electromagnetic radiation, to take full account of the biological effects which such radiation has on humans, plants and animals?

As the law of the European Union applies in the same way in all the member states, and all the member states of the European Union are also signatories to the ECHR, our approach can be copied by individuals or groups in every member state of the European Union.

To that end we translated the gist of our writ of summons and our most important submissions to the court into English and, with DeepL Pro, into other major European languages.

We are open to share these documents with other groups. Please contact us for more information in case you are interested.

If you feel like supporting our cause, feel free to do so at BE45 9733 9096 4089 BIC: ARSPBE22 StralingsArmVlaanderen.be SaveBelgium.be https://savebelgium.be/radiation-court-case-against-belgium-and-the-eu-state-of-play/

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Joel M. Moskowitz, Ph.D., Director Center for Family and Community Health School of Public Health University of California, Berkeley

Electromagnetic Radiation Safety

Website: https://www.saferemr.com

Facebook: https://www.facebook.com/SaferEMR

Twitter: @berkeleyprc

Re: Low-level EMF effects on wildlife and plants: What research tells us about an ecosystem approach

Peter Tocci

To: Olle Johansson

Cc:

Mon, Dec 5 at 11:29 AM

Thanks, Olle. Much appreciated.

Peter

Thank you so much, dear Peter, for all this information! Your open questions are ... highly relevant.

With my very best regards Yours sincerely Olle

(Olle Johansson, associate professor)

4 dec. 2022 Peter Tocci:

Thanks so much, Olle, for your two excellent pieces.

For Life EMC, here is how I see it. You say on the last page (61):

It should be noted that only one such genuine hygienic safety value ever has been proposed: 0.00000000001 0.000000000001  $\mu$ W/m2 [for 1,800 MHz] – this is the natural background during normal cosmic activities; proposed by myself at a trade union meeting in Stockholm, already in 1997.

This is true on one level, in the sense that it's specific; but already in 1981, the WHO, reporting on the 1973 Warsaw international symposium, said essentially the same thing, but non-specific. Here's an excerpt from my 11/17/19 article, What Do YOU Mean When You Say "5G"?

By 1962, the severe dangers and stealth-weapon potentials of microwave were fully understood by science, militaries and governments ("5G" in video title reflects uploader's bias). Of several historical documents acknowledging the deleterious effects of low-level, artificial electromagnetic fields - denied by FCC and FDA - two stand out.

The definitive historical document thus far for this writer pertaining to wireless tech is a 1981 World Health Organization (WHO) report entitled Environmental Health Criteria 16: Radiofrequency and Microwaves (I've always thought it unfortunate - and instructive - that "environmental health" is not about techno-human torment of Earth, but concern about 'just payback' for Her tormentors). It's a review of Biologic Effects and Health Hazards of Microwave Radiation: Proceedings of an International Symposium Warsaw, I5-18 October, 1973.

Quite long and technical, the WHO report covers many aspects. It covers all telecom/WiFi frequencies, including MMW. But real-world harm for the last three decades has come, and continues, via digital 2G-4G frequencies.

As forthright as the WHO publication purports to be, the Summary reveals a distressing ruthlessness. It's all most people need to read to understand that 'they' knew. For reader convenience, brief excerpts follow. "Section 1.1.3 Biological effects in experimental animals: It has been demonstrated that low-level, long-term exposure may induce effects in the nervous, haematopoietic (production of blood cells and platelets), and

immuno-competent cell systems of animals. Such effects have been reported in small animals (rodents) exposed to incident power density levels as low as 0.1-1.0 mW/cm2" (mW = milliwatt - one thousandth of a watt). So this is one tenth of one thousandth of a watt to one thousandth of a watt per square centimeter. FCC limit: one thousandth of a watt - 1 mW/cm2 (for frequencies 1500 MHz - 100 GHz).

"The reported effects on the nervous system include behavioural, bioelectrical, metabolic, and structural (at the cellular and subcellular levels) changes. Erythrocyte production and haemaglobin synthesis may be impaired and immunological reactivity changed." OK so far (except for exploiting/hurting animals).

"Section 1.1.6: Health risk evaluation as a basis for exposure limits: ... A highly conservative approach would be to keep exposure limits close to natural background levels. However, this is not technically feasible [emphasis added]. A reasonable risk-benefit analysis has to be considered."

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Behold! The upper limit on reported effects is the current FCC limit :-)

\*\*One irony is that the quality/reliability of the science of the day was/is irrelevant. It's what they thought they knew and dismissed that counts. What "close" meant isn't explained, but certainly anything close to cosmic by a million- or billion-fold is quite unlikely to be "not technically feasible":-)

As we know, no risk-benefit analysis ever appeared - it would have made things much worse for them. Instead, magically, the heating bias did. Also dubious was "highly conservative." Safe? But we must emphasize that, below the heating level (which I've not been able to find as a specification, you?) power level is virtually irrelevant - since no safe limit for all life forever has ever been demonstrated, and never can be, as I've suggested ad nauseam in this forum.

And if the argument and sources about power level Arthur provides in his Radio Wave Packet are sound, the power-irrelevancy case is made. Period. The community might want to vet that and make the point one way or the other. Since power density is what guidelines are based on, if the cited science holds up, the call for new ones should cause embarrassment. I suggest it should, and does, anyway.

Likewise, the community might do well to scrutinize data and references assembled in The Invisible Rainbow, and if it's determined to be sound, drop immediately any pretense of attempting to live with wireless. And then we may need to how we can otherwise DE-technologize. OR, just admit we don't care (enough) if we seriously threaten Nature, fetuses and kids for money. The latter is, after all, the tacit agreement underlying our toxic, technomasturbating, earth-liquidating way of life.

Earlier, same page, it says:

It is high time to recognize ambient electromagnetic fields as a form of harmful pollution, not so novel any longer but present for decades, and finally develop laws at regulatory agencies that designate the environment as a whole, including the airways, land and sea, as 'habitat' for all species, as well as for humans, so electromagnetic fields and signals can be formally and legally regulated like other pollutants.

I must respectfully disagree on at least three levels. First, I shudder to think of the consequences of EMF being handled like other pollutants - if you catch my meaning :-) They are simply sickening and killing life, regulated as they are. Then come the 80,000 to 100,000 UNregulated ones!

Second, the toxin issue is utterly confounded by the quite unscientific habit of assessing each one singly, when, as you have pointed out, they are myriad and synergistic at once. This applies as well to the mutually exacerbating interaction of EMF and chemicals in the field (within the bodies of species) - just another reason why a safe level can never be established under the controlled conditions of testing and studies.

And if I must cite my article discussing this again, to which no one has seen fit to reply, here it is Giving Life the Electric Chair — The Plain Physics & Biophysics of Phone & WiFi Radiation

Third, formally regulated seems incongruous with hygienic safety value? Unless you are being cleverly tongue-in-cheek and, by your assertion, hoping readers will make the connection that regulation is futile? :-)

It seems much the same with the Bee Or Not to Bee article, which is still packed with valuable data. It says, As a scientist and as a citizen, I do not know if the new version of wireless telecommunication, the so-called 5G, is safe or not. Neither does the The Federal Communications Commission (FCC)...

I understand the rhetorical reason for saying that, but some citizens (not the masses) and even non-scientists, know with a high degree of certainty it's not safe, based on what they know of the previous Gs. The latter forms the basis of the 5G Manifesto-in-Effect.

The FCC knows for sure it's not safe, but is covering that up with the same contrivance covering up for the rest, now based on ANSI/IEEE C95.1-2019 guidelines covering the frequency range from 0 Hz to 300 GHz.

### A couple of random notes:

Transportation Committee hearing on the future of 5G wireless technology and their impact on the American people and economy – were asked by U.S. Senator Richard Blumenthal why there is a lack of any scientific research and data on the 5G technology's potential health risks, and where he also criticized the FCC & FDA for inadequate answers on outstanding public health questions, he had to point firmly to that the wireless carriers concede they are not aware of any independent scientific studies on safety of 5G!

As you know, absent same for 2G-4G, I'm opposed to 5G opposition - as it's being done. Given the plethora of research on G2 to 4, and that Mr. Blumenthal, based on his silence on the issue theretofore, has apparently preferred to cleave to the FCC's lies and manipulations — particularly the very special, "no credible scientific evidence exists..." — one can conclude that this concern is a convenient political grandstand worth what the exposure level should be - ZERO. The man has previously shown no savvy whatever about the threat - pardon me, risk - of wireless.

Moreover, the wireless carriers' concession seems of little significance (some have accused them of not doing any research). In fact, it's not even their job, which is to go by what the regulatory agency dictates. Compliance is all that's required of them. If asked, would they say they're aware of any credible scientific evidence on any G?

### Also:

There is an urgent need for completely independent research projects to be be inaugurated immediately to ensure our public health, as well as the safety and future of other animals, plants and bacteria. These projects must be entirely independent of all types of commercial interests; public health and the future of wildlife can not have a price-tag!

I've suggested on several occasions that more research would amount to pouring water into a full bucket. Is it not required only that society heed the great volume we have?! We do not have a science problem, we have a conspiratorial and political one. If the science we have has not made the difference by now, what makes anyone believe the next new study will tip the scale? If/when it comes to facing hard truth, the community might do well to face this one.

Thus, for me, talk about new safety levels (dangerous false sense of security) and more research have the de facto effect of preserving jobs and careers. It's almost like conventional medicine, were there's far more money in research and half-baked solutions than in any cure which might be found.

Please note, I'm a little bit following your lead on page 20: Instead of avoiding the issue, it's high time to be completely outspoken, blunt, even to the point of rudeness.

I have even attempted blunt in a small way previously in this forum, and it has produced silence. I suggest once more also that the community would do well to abandon the political/official game, or at least add to it a loud, continual, urgent warning directly to the people — not organized necessarily, but each in his own way to the circle of influence — to QUIT or PERISH. I mean, as long as we're banging our heads against a wall :-) No scientist here seems to like that idea. Careers/jobs at stake? Embarrassment for not having reached the point of common sense (much) earlier? What else can be going on, Olle?

We can fast-forward then, to the list of Bee to Bee conclusions, with one comment: "Obsolete" equivalence = "outdated." Logically, is it possible that something never of any use or validity can be obsolete?

- 1) Low-intensity (non-thermal) bioeffects and adverse health effects are demonstrated at levels significantly below existing exposure standards.
- 2) ICNIRP and IEEE/FCC public exposure recommendations are inadequate and obsolete with respect to prolonged, low-intensity (non-thermal) exposures.
- 3) New, biologically-based public exposure standards are urgently needed to protect public health and wildlife world-wide.
- 4) It is not in the public, nor in the animals', plants' or bacterias', interest to wait.

There is an urgent need for completely independent research projects to be be inaugurated immediately to ensure our public health, as well as the safety and future of other animals, plants and bacteria.

Ibid.

Best.

Peter

PS - Also, I'm not sure I like the idea that I (can't speak for Diana) will precede you thru the Pearly Gates - even though I may be older than thee? :-)

On Nov 29, 2022, at 4:36 PM, Olle Johansson wrote:

Here are two other papers to read - carefully and in all their details - while diving towards the ground...

Johansson O, "To bee, or not to bee, that is the five "G" question", Newsvoice.se 28/5, 2019 [enclosed as a pdf]

Johansson O, "The Stockholm Declaration about "Life EMC"", Bee Culture Magazine 2022; May issue: 56-61 [enclosed as a pdf]

I have taken a lot of flak trying to wake people up; trust me, many are very fast asleep. (But I do not want to end up in front of S:t Peter at the Pearly Gates, with him going: "Olle! Why didn't you speak up?! Why didn't you tell the truth?!" It is better he says: "Olle, you did as good as you could. You failed, but you tried your hardest and most honestly. You are warmly welcome; Peter and Diana, and the others, are waiting for you.")

With my very best regards Yours sincerely Olle

(Olle Johansson, associate professor)

29 nov. 2022 Peter Tocci:

"We seem to be locked in a death spiral, and I personally haven't got a clue how to get out of this particular tailspin. There's too much equivocation."

Precisely, Diana. It's butt-covering scientist-speak.

As I've noted over again, between human-health collapse/tailspin and ecosystem collapse/tailspin, both of which are in progress, "pray" for the former to come first. It MAY be a wake-up call. Although, when it happens, there may be a call for more research from whomever's left standing.

The extent of pussy-footing, equivocation, and silence upon direct question across the EMF scientist community sends chills down my spine. It's becoming pretty transparent. And you had doubts about control...

P.

On Nov 29, 2022, at 5:10 AM, Diana Kordas wrote:

Hi all,

First, I have to say I agree with you, Peter--good to see an environmental paper BUT as usual it does not go far enough. I can assure all of you that the environment cannot live with this technology and setting standards is meaningless. The insects are rapidly going extinct (we have lost a great many species here, many since last year), bird numbers are dwindling so fast it's not a joke, small mammals are dying out, and the large mammals are starving to death. In Greece, bear and boar are now roaming the streets of towns and cities looking for food-also in Croatia that I know of, no doubt other places, and bear are doing the same in Alaska. EMR is very likely the driving factor behind all the bird flu, and it definitely causes soil acidification which makes it hard to grow food (and when the soil gets damaged enough, impossible).

So we have another paper that says the environment may suffer from too much EMR, and species might go extinct. You can't take that to the bank. I have been corresponding with Matt Shardlow, CEO of Buglife for years, pressing him to ask for a moratorium on 5G (at least) or an outright ban on all wireless (at best) but he won't do it because there isn't a single person who has said, in writing, that EMR will harm the environment and cause extinctions. Is he asking for the moon? Does science never do better than may/might?

All around me I see people suffering from the effects of EMR (though most are not aware of what is causing their problems) and the environment imploding. We can't live with this technology and there are no safe limits. We seem to be locked in a death spiral, and I personally haven't got a clue how to get out of this particular tailspin. There's too much equivocation.

Cheers, Diana

28.11.2022, "Peter Tocci": Andrew. Joel and all.

This is great on one level to see, since I've maintained, for the 3 years I've been with PACE, that the greater threat of wireless by far is to the ecosystem, not humans, and that this reversal of priority has been ill advised.

It was a featured theme in my first ever article on wireless published online (2/9/19, 13,000 words, 44 references) Wireless Technology: Ultra Convenient. Endlessly Entertaining. Criminally Instigated. Terminally Pathological. It's in dire need of update, but still holds water, if nothing else, in the title itself.

It referenced for one thing the huge compendium of scientific literature and a Summary section good for lay persons at Physicians for Safe Technology. Environment and Wildlife Effects, which was first published in 2018, but includes science well prior to that. So it may be well past high time for the understated: There is enough evidence to indicate we may be damaging non-human species...

Given the tiring number of times I've made this point in PACE threads, meaning, I know you've seen it, Joel, never was there acknowledgement/discussion from you (or anyone else). Your saferemr site has always emphasized human concerns and new safety levels, which I've always questioned, and did so with you in an email exchange in 2015, which you suddenly terminated when pressed (politely) on the matter of no safe "dose."

The new paper follows the same model for Nature as for humans:

Long-term chronic low-level EMF exposure guidelines, which do not now exist, should be set accordingly for wildlife; mitigation techniques where possible should be developed; full environmental reviews should be conducted prior to the licensing/buildout of major new technologies like 5G; and environmental laws/regulations should be strictly enforced...

I respectfully suggest that — since such standards are impossible to establish for humans, due to their individuality and within myriad variations in moment-to-moment circumstances in daily life, along with extremely and rapidly changing, unpredictable and unmanageable variability in radiation exposure in the field and its interactions with unknown toxic body burdens — the job becomes exponentially "more impossible" against the enormous variation in species characteristics in Nature ("ecosystem and biosphere levels") - many millions of species.

I say "more impossible," because commonplace 5G hysteria implies that it's going to make us more dead than 2G-4G is already doing, and thus we need to stop it, but not the rest, which we're going to manage with those magical new exposure guidelines. For some reason, I keep coming back to Olle's suggestion that we need a Nobel Prize for common sense.

This line is interesting: Any existing exposure standards are for humans only; wildlife is unprotected, including within the safety margins of existing guidelines, which are inappropriate for trans-species sensitivities and different non-human physiology. Implying what - existing guidelines for humans are appropriate? Why are we mounting appeals and lawsuits for new ones?

Are we sure about the term "trans-species," a term used in psychology, or referring to transgenderism? A transspecies man who lives in the woods as a squirrel was arrested this morning by deputies of the Bacon County Sheriff's Department for hijacking two trucks containing more than twenty tons of peanuts each...:-)

### And,

...full environmental reviews should be conducted prior to the licensing/buildout of major new technologies like 5G; and environmental laws/regulations should be strictly enforced...

I'll take a wild stab and suggest that by time environment is fully reviewed globally — at the detail level required, a guarantee of safety for all species forever — we may well have had human-health or/and ecosystem collapse.

But according to you in our exchange at the time, Joel, safety was not the goal, but, "The goal is harm reduction." The rationale was that since society accepts so many other forms of toxic and energetic health assaults, wireless should get at least same/similar pass. This recalls a quotation:

Only by the most outrageous violation of ourselves do we come into conformity with a society bent on its own destruction. - R.D. Laing

In other words, is technociety a process of inexorable technological self-termination, whether directly or by fatal damage to the web of life? And I was asked in the email how a message suggesting that harm from all arenas should be banned if wireless were banned would be taken seriously by policy makers. In other words, justifying one suicidal tendency with others.

Should we start somewhere, though, or just keep adding, according to that logic. Seems a pretty good candidate to me.

But that skirted my main point: Make all the capitulatory proposals you wish to the ruthless criminals running the show, but just include the whole truth: Namely, "We really don't know; there may well be no way to live with this particular technology."

That has never been said to my knowledge, to the face of authority. Also, nothing I said implied a sudden shutdown, but one of measured reversion to wired.

"Harm reduction" is one thing, and we say society accepts the attendant illness, suffering, misery and loss. But eventual life termination? Are you on with that agenda, Joel? The final question seems to be, do we want our toys or do we want survival.

As I often suggest, forget the criminalized agencies and lobbied/pressured politicians and officials - because they will never fully relent (or be allowed to) - and go direct. To the people.

Tell them, for example, that wireless is taking down the ecosystem, and will take their future with it. Tell them that the viability and health of the next fetus they create is a crapshoot. I suggest to parents that if they wouldn't sit around watching the kids shoot heroin in the living room (which in moderate dose is even less harmful than wireless), they don't want them playing with wireless technology. It's an evil seduction with malice aforethought. I suggest the scientific community make this noise loudly to the public — and to "policy makers."

With this new paper, however, we seem to have garnered a bit more resolve to be talking about absolute safety from wireless for all life? So can one surmise, Joel, that you've come a way since 2015?

Best,

#### PeterT

PS - In re the concept "process" pollutant, in researching Giving Life the Electric Chair — The Plain Physics & Biophysics of Phone & WiFi Radiation, I came to call it Radiofrequency Interference, suggesting that if humans were electronic equipment, we'd be much better protected by the FCC.

On Nov 25, 2022, at 4:30 PM, Andrew Michrowski wrote:

From: Joel M. Moskowitz PhD Date: Fri, Nov 25, 2022 at 3:36 PM

Subject: Low-level EMF effects on wildlife and plants: What research tells us about an ecosystem approach To: CHEscience (Collaborative on Health and the Environment) < chescience@healthandenvironment.org>

Low-level EMF effects on wildlife and plants: What research tells us about an ecosystem approach Levitt BB, Lai HC and Manville AM II. (2022) Low-level EMF effects on wildlife and plants: What research tells us about an ecosystem approach. Front. Public Health 10:1000840. doi: 10.3389/fpubh.2022.1000840.

#### Abstract

There is enough evidence to indicate we may be damaging non-human species at ecosystem and biosphere levels across all taxa from rising background levels of anthropogenic non-ionizing electromagnetic fields (EMF) from 0 Hz to 300 GHz. The focus of this Perspective paper is on the unique physiology of non-human species, their extraordinary sensitivity to both natural and anthropogenic EMF, and the likelihood that artificial EMF in the static, extremely low frequency (ELF) and radiofrequency (RF) ranges of the non-ionizing electromagnetic spectrum are capable at very low intensities of adversely affecting both fauna and flora in all species studied. Any existing exposure standards are for humans only; wildlife is unprotected, including within the safety margins of existing guidelines, which are inappropriate for trans-species sensitivities and different non-human physiology. Mechanistic, genotoxic, and potential ecosystem effects are discussed.

### Excerpt

Radiofrequency radiation is a form of energetic air pollution and should be regulated as such (25). U.S. law (130) [42 USC § 7602 (g)] defines air pollution as:

"The term "air pollutant" means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used."

Unlike classic chemical toxicology pollutants in which a culprit can typically be identified and quantified, RFR may function as a "process" pollutant in the air not unlike how endocrine disruptors function in food and water in which the stressor causes a cascade of unpredictable systemic effects. The stimulus in the RFR analogy would be physical/energetic rather than chemical.

Long-term chronic low-level EMF exposure guidelines, which do not now exist, should be set accordingly for wildlife; mitigation techniques where possible should be developed; full environmental reviews should be conducted prior to the licensing/buildout of major new technologies like 5G; and environmental laws/regulations should be strictly enforced (25). We have a long over-due obligation to consider potential consequences to other species from our current unchecked technophoria—an obligation we have thus far not considered before species go extinct. In the views of these authors, the evidence requiring action is clear.

Open access paper: https://www.frontiersin.org/articles/10.3389/fpubh.2022.1000840

### Related Posts:

Electromagnetic fields threaten wildlife Effects of Wireless Radiation on Birds and Other Wildlife Cell Tower Radiation Affects Wildlife: Dept. of Interior Attacks FCC

Joel M. Moskowitz, Ph.D., Director Center for Family and Community Health School of Public Health University of California, Berkeley

Electromagnetic Radiation Safety

Website: https://www.saferemr.com

Facebook: https://www.facebook.com/SaferEMR

Twitter: @berkeleyprc

From: Diana Kordas

To: Peter Tocci; Olle Johansson

Cc:

Sent: Tuesday, December 6, 2022 at 02:50:47 AM PST

Subject: Re: Low-level EMF effects on wildlife and plants: What research tells us about an ecosystem approach

I think "quit or perish" sums it up nicely, Peter. The problem with saying we don't know what the effects of 5G are is that it is irrelevant--we know what the effects of previous generations are, and they're all bad, and now we've added mmw to the mix, so how can this be good? And the damage is cumulative. But how can we overcome the denial that rules on every level of society?

A year ago I tried to warn some neighbours about the dangers of keeping their phones next to their bodies, never turning them or their wi-fi off. I bored them. Then she got pregnant. The baby was born at 8 months with a birth weight of one kilo. Lowest I've ever heard of. She's a nurse, did not get vaccinated against covid, neither of them did. But she did keep going for ultrasounds, did keep on with the phones and the wi-fi and of course there are all the cell towers. I am hearing about lots of problems with newborns, many birth defects etc. I think these have to be the result of years of cumulative exposure to EMR--think Magras and Xenos and the mice with genetic defects--but nobody ever listens.

And you are right, there is plenty of science, it's just falling on deaf ears. The core of the problem may be addiction to devices coupled with "it won't happen to me" even when people know they are dangerous. And "I'll quit if everyone else does." This is like trying to stop a tsunami by holding your hands up.

There might be a chance if we could get past the addiction factor--maybe. I don't think it's the lack of science that's the problem; in a way that is just an excuse. But people with smartphones are so addicted they touch the damn things over 2000 times a day--this includes government figures. It's worse than heroin. You ever try to talk an addict out of his addiction? Solve that and we just might get somewhere. I sure can't. People see me coming and their eyes glaze over. Meanwhile mothers let their kids drown because they spend their time staring at their phones.

You can always claim the need for more science. But like you, I think there is plenty. So why isn't it making an impact?

Cheers, Diana

05.12.2022, 21:29, "Peter Tocci": Thanks, Olle. Much appreciated.

Peter

Thank you so much, dear Peter, for all this information! Your open questions are ... highly relevant.

With my very best regards Yours sincerely Olle

(Olle Johansson, associate professor)

Den sön 4 dec. 2022 kl 21:57 skrev Peter Tocci: Thanks so much, Olle, for your two excellent pieces.

For Life EMC, here is how I see it. You say on the last page (61):

It should be noted that only one such genuine hygienic safety value ever has been proposed: 0.00000000001 0.000000000001  $\mu$ W/m2 [for 1,800 MHz] – this is the natural background during normal cosmic activities; proposed by myself at a trade union meeting in Stockholm, already in 1997.

This is true on one level, in the sense that it's specific; but already in 1981, the WHO, reporting on the 1973 Warsaw international symposium, said essentially the same thing, but non-specific. Here's an excerpt from my 11/17/19 article, What Do YOU Mean When You Say "5G"?

By 1962, the severe dangers and stealth-weapon potentials of microwave were fully understood by science, militaries and governments ("5G" in video title reflects uploader's bias). Of several historical documents acknowledging the deleterious effects of low-level, artificial electromagnetic fields - denied by FCC and FDA - two stand out.

The definitive historical document thus far for this writer pertaining to wireless tech is a 1981 World Health Organization (WHO) report entitled Environmental Health Criteria 16: Radiofrequency and Microwaves (I've always thought it unfortunate - and instructive - that "environmental health" is not about techno-human torment of Earth, but concern about 'just payback' for Her tormentors). It's a review of Biologic Effects and Health Hazards of Microwave Radiation: Proceedings of an International Symposium Warsaw, I5-18 October, 1973.

Quite long and technical, the WHO report covers many aspects. It covers all telecom/WiFi frequencies, including MMW. But real-world harm for the last three decades has come, and continues, via digital 2G-4G frequencies.

As forthright as the WHO publication purports to be, the Summary reveals a distressing ruthlessness. It's all most people need to read to understand that 'they' knew. For reader convenience, brief excerpts follow.

"Section 1.1.3 Biological effects in experimental animals: It has been demonstrated that low-level, long-term exposure may induce effects in the nervous, haematopoietic (production of blood cells and platelets), and immuno-competent cell systems of animals. Such effects have been reported in small animals (rodents) exposed to incident power density levels as low as 0.1-1.0 mW/cm2" (mW = milliwatt - one thousandth of a watt). So this is one tenth of one thousandth of a watt to one thousandth of a watt per square centimeter. FCC limit: one thousandth of a watt - 1 mW/cm2 (for frequencies 1500 MHz - 100 GHz).

"The reported effects on the nervous system include behavioural, bioelectrical, metabolic, and structural (at the cellular and subcellular levels) changes. Erythrocyte production and haemaglobin synthesis may be impaired and immunological reactivity changed." OK so far (except for exploiting/hurting animals).

"Section 1.1.6: Health risk evaluation as a basis for exposure limits: ... A highly conservative approach would be to keep exposure limits close to natural background levels. However, this is not technically feasible [emphasis added]. A reasonable risk-benefit analysis has to be considered."

•••

Behold! The upper limit on reported effects is the current FCC limit :-)

\*\*One irony is that the quality/reliability of the science of the day was/is irrelevant. It's what they thought they knew and dismissed that counts. What "close" meant isn't explained, but certainly anything close to cosmic by a million- or billion-fold is quite unlikely to be "not technically feasible":-)

As we know, no risk-benefit analysis ever appeared - it would have made things much worse for them. Instead, magically, the heating bias did. Also dubious was "highly conservative." Safe? But we must emphasize that, below the heating level (which I've not been able to find as a specification, you?) power level is virtually irrelevant - since no safe limit for all life forever has ever been demonstrated, and never can be, as I've suggested ad nauseam in this forum.

And if the argument and sources about power level Arthur provides in his Radio Wave Packet are sound, the power-irrelevancy case is made. Period. The community might want to vet that and make the point one way or the other. Since power density is what guidelines are based on, if the cited science holds up, the call for new ones should cause embarrassment. I suggest it should, and does, anyway.

Likewise, the community might do well to scrutinize data and references assembled in The Invisible Rainbow, and if it's determined to be sound, drop immediately any pretense of attempting to live with wireless. And then we may need to how we can otherwise DE-technologize. OR, just admit we don't care (enough) if we seriously threaten Nature, fetuses and kids for money. The latter is, after all, the tacit agreement underlying our toxic, technomasturbating, earth-liquidating way of life.

Earlier, same page, it says:

It is high time to recognize ambient electromagnetic fields as a form of harmful pollution, not so novel any longer but present for decades, and finally develop laws at regulatory agencies that designate the environment as a whole, including the airways, land and sea, as 'habitat' for all species, as well as for humans, so electromagnetic fields and signals can be formally and legally regulated like other pollutants.

I must respectfully disagree on at least three levels. First, I shudder to think of the consequences of EMF being handled like other pollutants - if you catch my meaning :-) They are simply sickening and killing life, regulated as they are. Then come the 80,000 to 100,000 UNregulated ones!

Second, the toxin issue is utterly confounded by the quite unscientific habit of assessing each one singly, when, as you have pointed out, they are myriad and synergistic at once. This applies as well to the mutually exacerbating interaction of EMF and chemicals in the field (within the bodies of species) - just another reason why a safe level can never be established under the controlled conditions of testing and studies.

And if I must cite my article discussing this again, to which no one has seen fit to reply, here it is Giving Life the Electric Chair — The Plain Physics & Biophysics of Phone & WiFi Radiation

Third, formally regulated seems incongruous with hygienic safety value? Unless you are being cleverly tongue-in-cheek and, by your assertion, hoping readers will make the connection that regulation is futile? :-)

It seems much the same with the Bee Or Not to Bee article, which is still packed with valuable data. It says, As a scientist and as a citizen, I do not know if the new version of wireless telecommunication, the so-called 5G, is safe or not. Neither does the The Federal Communications Commission (FCC)...

I understand the rhetorical reason for saying that, but some citizens (not the masses) and even non-scientists, know with a high degree of certainty it's not safe, based on what they know of the previous Gs. The latter forms the basis of the 5G Manifesto-in-Effect.

The FCC knows for sure it's not safe, but is covering that up with the same contrivance covering up for the rest, now based on ANSI/IEEE C95.1-2019 guidelines covering the frequency range from 0 Hz to 300 GHz.

### A couple of random notes:

Transportation Committee hearing on the future of 5G wireless technology and their impact on the American people and economy – were asked by U.S. Senator Richard Blumenthal why there is a lack of any scientific research and data on the 5G technology's potential health risks, and where he also criticized the FCC & FDA for inadequate answers on outstanding public health questions, he had to point firmly to that the wireless carriers concede they are not aware of any independent scientific studies on safety of 5G!

As you know, absent same for 2G-4G, I'm opposed to 5G opposition - as it's being done. Given the plethora of research on G2 to 4, and that Mr. Blumenthal, based on his silence on the issue theretofore, has apparently preferred to cleave to the FCC's lies and manipulations — particularly the very special, "no credible scientific evidence exists..." — one can conclude that this concern is a convenient political grandstand worth what the exposure level should be - ZERO. The man has previously shown no savvy whatever about the threat - pardon me, risk - of wireless.

Moreover, the wireless carriers' concession seems of little significance (some have accused them of not doing any research). In fact, it's not even their job, which is to go by what the regulatory agency dictates. Compliance is all that's required of them. If asked, would they say they're aware of any credible scientific evidence on any G?

### Also:

There is an urgent need for completely independent research projects to be be inaugurated immediately to ensure our public health, as well as the safety and future of other animals, plants and bacteria. These projects must be entirely independent of all types of commercial interests; public health and the future of wildlife can not have a price-tag!

I've suggested on several occasions that more research would amount to pouring water into a full bucket. Is it not required only that society heed the great volume we have?! We do not have a science problem, we have a conspiratorial and political one. If the science we have has not made the difference by now, what makes anyone

believe the next new study will tip the scale? If/when it comes to facing hard truth, the community might do well to face this one.

Thus, for me, talk about new safety levels (dangerous false sense of security) and more research have the de facto effect of preserving jobs and careers. It's almost like conventional medicine, were there's far more money in research and half-baked solutions than in any cure which might be found.

Please note, I'm a little bit following your lead on page 20: Instead of avoiding the issue, it's high time to be completely outspoken, blunt, even to the point of rudeness.

I have even attempted blunt in a small way previously in this forum, and it has produced silence. I suggest once more also that the community would do well to abandon the political/official game, or at least add to it a loud, continual, urgent warning directly to the people — not organized necessarily, but each in his own way to the circle of influence — to QUIT or PERISH. I mean, as long as we're banging our heads against a wall:-) No scientist here seems to like that idea. Careers/jobs at stake? Embarrassment for not having reached the point of common sense (much) earlier? What else can be going on, Olle?

We can fast-forward then, to the list of Bee to Bee conclusions, with one comment: "Obsolete" equivalence = "outdated." Logically, is it possible that something never of any use or validity can be obsolete?

- 1) Low-intensity (non-thermal) bioeffects and adverse health effects are demonstrated at levels significantly below existing exposure standards.
- 2) ICNIRP and IEEE/FCC public exposure recommendations are inadequate and obsolete with respect to prolonged, low-intensity (non-thermal) exposures.
- 3) New, biologically-based public exposure standards are urgently needed to protect public health and wildlife world-wide.
- 4) It is not in the public, nor in the animals', plants' or bacterias', interest to wait.

There is an urgent need for completely independent research projects to be be inaugurated immediately to ensure our public health, as well as the safety and future of other animals, plants and bacteria.

Ibid.

Best.

Peter

PS - Also, I'm not sure I like the idea that I (can't speak for Diana) will precede you thru the Pearly Gates - even though I may be older than thee? :-)

On Nov 29, 2022, at 4:36 PM, Olle Johansson wrote:

Here are two other papers to read - carefully and in all their details - while diving towards the ground...

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With my very best regards Yours sincerely Olle

(Olle Johansson, associate professor)

Den tis 29 nov. 2022 kl 22:27 skrev Peter Tocci:

"We seem to be locked in a death spiral, and I personally haven't got a clue how to get out of this particular tailspin. There's too much equivocation."

Precisely, Diana. It's butt-covering scientist-speak.

As I've noted over again, between human-health collapse/tailspin and ecosystem collapse/tailspin, both of which are in progress, "pray" for the former to come first. It MAY be a wake-up call. Although, when it happens, there may be a call for more research from whomever's left standing.

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28.11.2022, 23:59, "Peter Tocci":

Andrew. Joel and all,

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It was a featured theme in my first ever article on wireless published online (2/9/19, 13,000 words, 44 references) Wireless Technology: Ultra Convenient. Endlessly Entertaining. Criminally Instigated. Terminally Pathological. It's in dire need of update, but still holds water, if nothing else, in the title itself.

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...full environmental reviews should be conducted prior to the licensing/buildout of major new technologies like 5G; and environmental laws/regulations should be strictly enforced...

I'll take a wild stab and suggest that by time environment is fully reviewed globally — at the detail level required, a guarantee of safety for all species forever — we may well have had human-health or/and ecosystem collapse.

But according to you in our exchange at the time, Joel, safety was not the goal, but, "The goal is harm reduction." The rationale was that since society accepts so many other forms of toxic and energetic health assaults, wireless should get at least same/similar pass. This recalls a quotation:

Only by the most outrageous violation of ourselves do we come into conformity with a society bent on its own destruction. - R.D. Laing

In other words, is technociety a process of inexorable technological self-termination, whether directly or by fatal damage to the web of life? And I was asked in the email how a message suggesting that harm from all arenas should be banned if wireless were banned would be taken seriously by policy makers. In other words, justifying one suicidal tendency with others.

Should we start somewhere, though, or just keep adding, according to that logic. Seems a pretty good candidate to me.

But that skirted my main point: Make all the capitulatory proposals you wish to the ruthless criminals running the show, but just include the whole truth: Namely, "We really don't know; there may well be no way to live with this particular technology."

That has never been said to my knowledge, to the face of authority. Also, nothing I said implied a sudden shutdown, but one of measured reversion to wired.

"Harm reduction" is one thing, and we say society accepts the attendant illness, suffering, misery and loss. But eventual life termination? Are you on with that agenda, Joel? The final question seems to be, do we want our toys or do we want survival.

As I often suggest, forget the criminalized agencies and lobbied/pressured politicians and officials - because they will never fully relent (or be allowed to) - and go direct. To the people.

Tell them, for example, that wireless is taking down the ecosystem, and will take their future with it. Tell them that the viability and health of the next fetus they create is a crapshoot. I suggest to parents that if they wouldn't sit around watching the kids shoot heroin in the living room (which in moderate dose is even less harmful than wireless), they don't want them playing with wireless technology. It's an evil seduction with malice aforethought. I suggest the scientific community make this noise loudly to the public — and to "policy makers."

With this new paper, however, we seem to have garnered a bit more resolve to be talking about absolute safety from wireless for all life? So can one surmise, Joel, that you've come a way since 2015?

Best,

## PeterT

PS - In re the concept "process" pollutant, in researching Giving Life the Electric Chair — The Plain Physics & Biophysics of Phone & WiFi Radiation, I came to call it Radiofrequency Interference, suggesting that if humans were electronic equipment, we'd be much better protected by the FCC.