



EMR Aware

Electromagnetic Radiation - Concerns and Informed Choices

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Newsletter May 2015

Welcome to the **May 2015** edition of our online Newsletter. Please send a link to this page to as many interested persons as you wish. If any of the external webpages linked herein have been taken down, try to find another source by cutting and pasting the actual title of the article into your search bar. To assist with a fair and balanced discussion, our primary focus is upon the side of the story you may not hear from industry and their obliging government

regulators. Be sure to check out all our newsletters. Taken as a whole, they form a comprehensive overview of emerging technologies, scientific findings, safety reform, and the worldwide EMR debate.

EMR Aware is a not-for-profit association based in Byron Shire on the Northcoast of NSW Australia. In addition to relaying the latest news from contacts worldwide, our group provides commentary on local issues, as well as a range of free community-oriented services. The latter include educational literature, audiovisual presentations, and a DVD containing thousands of research studies on the adverse effects of electromagnetic radiation (EMR).

Airline Pilots and Depression



The recent tragic end of Germanwings flight 4U9525, and possibly Malaysian Air MH370, suggests that even trained pilots can be susceptible to depression and self-destructive behaviour. With each new aircraft released for service, flight deck electronics become an increasingly complex source of EMR. Additional to this is microwave radiation from the aircraft's routers, if it is Wi-Fi equipped, and passengers' personal wireless devices. Airports and hotels where pilots spend their off-time are similarly infested. While we do not draw any firm conclusions, it is of interest to note that several scientific studies have linked depression with radiofrequency exposure.

The rate of depressive subjects affected by microwaves (28%) was five times higher compared to that rate in a healthy group (5.6%). Modulated Microwave Effects on Individuals with Depressive Disorder. <http://link.springer.com/article/10.1007%2Fs10669-007-9068-x>

"In cases of depressive disorder the SASI level was positive." EEG Spectral Asymmetry Index Reveals Effect of Microwave Radiation. http://link.springer.com/chapter/10.1007/978-3-642-23508-5_312

"â€ŽDecreased levels of serotonin are associated with depression or anxiety." Would You Put Your Head in a Microwave Oven by

Gerald Goldberg. <https://books.google.com.au/books?isbn=1467076090>

"Biological effects due to microwave exposure (are) decision difficulties, insomnia, and depressive hypochondriac tendencies." RF/Microwave Interaction with Biological Tissues. <https://books.google.com.au/books?isbn=0471752045>

Electro-stimulation



Professor Allan Snyder, Director of the Centre for the Mind at Sydney University, with his "thinking cap".

If induced electrical current within the brain causes depression and other mental impairments, can it also be applied consciously for reverse effects? Transcranial Direct Current Stimulation (tDCS) has a cult following among geeks, online gamers, and students for memory

enhancement and clarity. The US Air Force claims it boosts the performance of pilots, who are confined in high EMR environments for extended periods. A basic version, consisting of a small battery and current regulator, can be built for \$15 in parts. If nothing else, the disproportionately profound effects of such a minute stimulus demonstrate we do not understand enough about the human body to allow our environment to be saturated with an ever-expanding gamut of EMR. <http://www.scientificamerican.com/article/amping-up-brain-function/>

Here is a related modality based upon applied pulsed magnetic fields. Transcranial Magnetic Stimulation (TMS) - Brain Science Breakthrough. http://www.sutherlandsurvey.com/Columns_Papers/Transcranial%20Magnetic%20Stimulation-%20Brain%20Science%20Breakthrough-%20Feb%202006.pdf

"The 100% response rate manifested by the study group suggested that the ability to detect low-strength, low-frequency MFs is a common property of the human nervous system." Effect of Low-frequency Magnetic Fields on Brain Electrical Activity in Human Subjects. <http://www.ncbi.nlm.nih.gov/pubmed/15066545>

NBN Tower Action

Upon coming into office as Communications Minister, Malcolm Turnbull declared that in "difficult" rural areas fibre optic cable will not terminate at each premises, but rather at a distribution node. From there, two cost-saving methods are being applied. The difference is how they communicate with the subscriber. Towers do so via a wireless link to a roof-top transceiver on each home, while "fibre-to-node" feeds into existing copper phone lines. The former method, although offering faster internet speeds, has evoked widespread outrage over visual intrusion and microwave bombardment of entire neighbourhoods.

Given the sporadic rate at which NBN wireless is proceeding, will it soon be rendered obsolete by congestion? This article highlights the unpredictable factors involved. <http://www.smh.com.au/digital-life/digital-life-news/the-real-reason-iinet-customers-are-facing-internet-speed-slowdowns-after-netflixs-arrival-20150408-1mgvas.html>

Damage to the electrical grid by the recent storms in Newcastle NSW revealed another flaw. Over 200,000 residents were left without power. Consequently, those who relied upon the NBN for their telephone service lost their connection. What if they had to call for

emergency assistance? This potentially unsafe situation does not occur with hardwired phones since they are powered via a low voltage supply contained within their cable.

Maleny to Meet with NBN

On **Thursday 14 May**, a "Community Information Session" with reps from NBN Co. will be held at the Maleny Community Centre Main Hall, 23 Maple Street. While the township itself is receiving a fixed line service, the rural outskirts will get wireless. In addition to announcing a new tower at the Public Works Depot, NBN Co's letter of invitation to the above event states, "In the rural and hinterland areas of the Sunshine Coast, 19 NBN fixed wireless facilities have been approved and commenced construction, at Eumundi, Browns Creek, Hunchy, Kenilworth, Gheerulla, Kidaman Creek, Mapleton, Bli Bli, Cooloolabin, Tinbeerwah, Kin Kin, Doonan, North Arm, Black Mountain, Boreen Point and the outskirts of Pomona and Nambour. A further facility has been approved at Pinbarren but is yet to commence construction."





Changing rural landscape. The new National Broadband Network towers at Carters Ridge and Kenilworth QLD.

Residents considering action against such towers in their locality might benefit from viewing the procedural advice on this excellent website. <http://www.nbntowers.com/>

Here is the ACMA's official position, in the form of a letter to one activist, on high or low impact designation of towers and their proper approval process. http://www.emraware.com/documents/letter_acma_redacted.pdf

Continuing opposition to a NBN tower in Woombah NSW has received support from politicians. <http://cvreview.com.au/nbn-tower->

[fails-to-deliver/](#)

Vanessa Ekins, elected member of Lismore Council in NSW, is conducting interviews at Rosebank, and monitoring the levels of EMR from their new NBN tower. Numerous residents opposed it, asking for satellite or copper wire instead. In what appears to be another poorly handled installation, some have reportedly taken to cutting trees to improve the disappointing reception.

Supreme Court Case in Tasmania

Tasmanian resident Jody Watkins has been diagnosed as suffering from Electro Hypersensitivity (EHS) by three independent doctors, one of whom gave evidence in the successful case of McDonald v Comcare for EMR-related injuries received while working at the CSIRO.

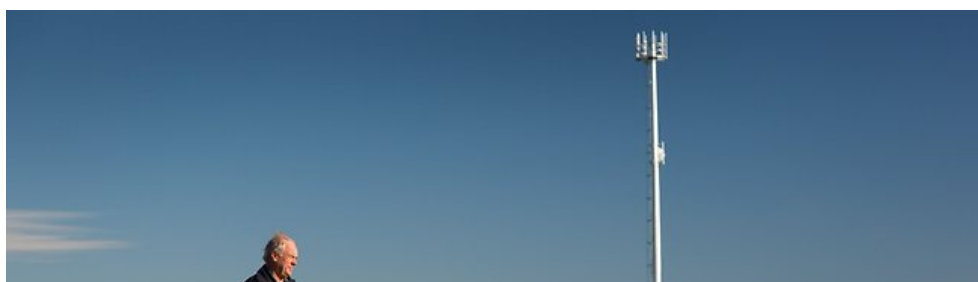
Two EMR experts conducted a survey utilising an operational tower in another area. They reported Jody suffered adverse health symptoms whilst there, and they stated in their report that a NBN tower emitting EMR next to land would pose a probable hazard to her health.

NBN Co. was advised of her condition and her concerns regarding the emission of EMR before they constructed a tower adjoining Ms Watkin's

rural land, and even before they were granted planning approval by Huon Valley Council.

Ms. Watkins is seeking an injunction in the Supreme Court against NBN Co. from turning on the tower and thus emitting EMR onto her land. Her injunction argument is that if the tower is turned on it will result in a nuisance, in that EMR from the tower will pollute Ms. Watkin's land and cause her to be subject to pain and suffering and render her home uninhabitable to her. She claimed that NBN Co. has designed and constructed a device with the clear intent to pollute her land with EMR.

Nuisance places the matter outside of planning laws, decisions by Ministers or Council, the regulatory regime of ARPANSA and the WHO. Simply put, every person has the right not have the use or the enjoyment of their home/land disrupted or interfered with. Section 3 of the Environmental Management and Pollution Control Act states that EMR is a pollutant and that the emission of a pollutant onto neighbouring land is a nuisance if it interferes with the rightful use and enjoyment of that persons land.





A resident comments on another NBN tower, this one in Ross, Tasmania. "The first thing I knew of it was seeing it hanging off a crane, being bolted into the ground. It was about 300m as the crow flies in front of my front window."

On 17 April 2015, Jody noticed a crane was placing a NBN tower onto neighbouring land. The Local Government Act states at section 201 that the General Manager of the Council may abate a nuisance if "there is immediate danger to any person or property". Accordingly, she sent a letter of complaint of impending nuisance and its immediate health danger to the Huon Valley Council, and requested that an abatement notice be issued against NBN Co to stop them from potentially polluting and creating a nuisance. Jodie's argument was that Council had a statutory duty to protect her. The Huon Valley Council decided not to issue an abatement notice.

In desperation Jody applied for a Quia Timet injunction on an exparte urgent basis in the Supreme Court of Tasmania. Quia Timet literally means "because he or she fears". Exparte

means having the matter heard before a judge without the other party (e.g. NBN Co.) being present.

The ex parte urgent injunction was filed and heard Monday 27 April, and Jody was represented pro bono by Barrister Raymond Broomhall. The judge upon hearing the matter stated that Ms. Watkins would need to make an undertaking to pay costs and financial losses to NBN Co. so as to protect them if an injunction was granted and then later overturned. The judge then said that even if Ms Watkin's gave an undertaking she would not have the sufficient funds or assets to enact it. (In response Ms Watkin's sought financial pledges from her supporters as a security to present to the Court. The response from all over the world has been overwhelming with over 96 financial pledges made to date, and this number is continually increasing).

The judge said the matter should be adjourned to Friday 1 May in order to allow NBN Co. to be heard. Mr. Broomhall objected and he argued that to have the matter adjourned was fraught with danger as there is no injunction yet in place to stop NBN Co. turning on the tower before the Friday hearing. The judge ordered an adjournment.

The matter was then heard on Friday, this time

NBN Co. was present, and announced to the court that they had turned the tower on the night before. Mr Broomhall made submissions that, due to the immediate health threatening nature of the actions of NBN Co. in turning on the tower, a decision as to an injunction must be made today. The hearing started at 2:25 and concluded at 5:00pm.

At the very last minute NBN Co. made an oral application to have Ms. Watkin's injunction application struck out. They also requested to have their application heard another day as the day was at an end. Mr. Broomhall again objected to an adjournment based upon the urgency of the matter, and the harm that Ms. Watkin's could suffer if the tower was left operational. He made submissions that an injunction should be granted immediately. The judge ordered that NBN Co. had a right to have their application heard and made orders to adjourn the matter to Monday 4 May.

On 4 May Ms. Watkins was unable to attend due to her ill health after being exposed to EMR from the tower. Ironically Mr Broomhall was also unable to attend due to him being admitted to hospital that morning. The matter was adjourned sine die (till further notice) to allow Mr. Broomhall to recover and to receive instructions from Ms. Watkins on how to progress the matter.

Ms. Watkin's is now looking for a new place to live and is considering whether to proceed with the Quia Timet injunction or to file a lawsuit for negligence.

Readers may contact Jody and her legal team at: giscreek@gmail.com

An example of a successful Court ruling against a phone tower in France. http://www.emraware.com/documents/france_ruling_tower.pdf

Telco's Lose Cover



Berkeley Mid-Atlantic group is the latest of several major insurers to add an EMR exclusion to their public liability policies. It reads: "This

insurance does not apply to: Electromagnetic Field Emissions and/or Radiation. 1) 'Bodily injury', 'property damage', 'personal and advertising injury', or 'reduction in value' related to any actual, alleged or threatened exposure to, presence of, contact with, release of, escape of, or discharge of electromagnetic field emissions, radiation, or any related physical phenomenon, including, but limited to, the following: a) Any supervision, instructions, recommendations, warnings or advice given or which should have been given in connection with the above ..." Read the full document here. <http://wrbmag.com/manuals/General%20Liability%20Forms/BMAG%20FORM%20CL%20CG%2021%2043%2003%2006%20Electromagnetic%20Fields%20Exclusion.pdf>

Notice of Unisurability

What are the implications of non-availability of insurance? The following report was received from a member of the group opposing NBN towers in the Maleny area.

"Just to let you know that the Witta Tower is far from finalised. We are delighted that the NBN has been forced to move away from putting the tower on private land because no landowner would sign a contract after receiving a formal legal notice by ourselves. As

mentioned the notice we served on all landowners in Witta where a tower could have been housed ensured that they had to declare to the insurance company what the contractual obligations were regarding insurance liability. This request automatically triggers a response from the Insurance company informing the landowner of the exclusion clause in Australia issued by the underwriters for the required cover. This in turn results in the landowner being in breach of the contract and the cost of resolving this exceeds \$200 thousand per tower per year according to two brokers we spoke with. We invite any party, including your group, to seek a quotation from a main insurance company to cover the risk that the exclusion clause removes from any policy in Australia to site an NBN tower with the contractual requirements. A few other communities have done so and received the same response re: the exclusion information concluding that they cannot offer cover. The same will apply to Telstra and we are in the process of preparing a legal notice to the board of Telstra because the same notice will apply to them. This in turn will, under the Corporations Act, require a range of

actions that we understand would inhibit them operating the NBN service."

Right to Associate

One of our contacts recently forwarded to us a written reply by the Australian Department of Communications that contained the following statement. "NBN Co. has advised that if there is clear community opposition to the use of fixed wireless technology, then the disputed area would be serviced by a satellite solution." It has been suggested by one of our local activists that such "opposition" would best be demonstrated by forming an incorporated association with which to deal with tower proponents. The process in Australia is straightforward and inexpensive. http://www.fairtrading.nsw.gov.au/ftw/Cooperatives_and_associations/Incorporating_an_association.page

Techno-Babel





In a momentous act of self-depreciation, NBN Co. has reportedly spent \$700,000 to affinitise its branding with the common man. Yes, they dropped the "Co"., and are now "more inspiring and aspirational"; or at least the PR company that got the job feels that way. To avoid the obvious, and possibly intended, confusion with the actual NBN project, we now refer to them as "Naughty But Nice". According to this article, the same amount of money could have paid for 162 connections. http://www.misaustralia.com.au/p/technology/connecting_one_premise_to_national_PEpugsmYRESZc9G34M8uTI

Their slightly inflammatory new motto is "bring it on". We hope God and the taxpayers are listening. <http://www.smh.com.au/business/nbn-co-spends-700000-to-drop-co-20150425-1msqpx.html>



The new NBN logo. We finally deciphered that

the dots are meant to look like the Australian continent, not gaps in what was originally intended to be safe, all-fibre-optic coverage.

Needing all the help they can get, NBN enlisted a six year old girl to launch the world's largest surveillance communication satellite. More specifically, she "decorated" the rocket's nosecone. NT Outback Schoolgirl's Stellar Drawing Chosen to Be on NBN Rocket. <http://www.abc.net.au/news/2015-05-01/bailey-brooks-stellar-drawing-wins-competition-to-be-on-rocket/6438604>

â€œRogue Agencyâ€ - Protesting Peeveyâ€™s (ex parte) Party. Bill Morrow, former President of the same PG&E is now CEO of NBN, and presiding, with surprisingly few regulatory checks and balances, over its highly unpopular wireless footprint. <https://www.youtube.com/watch?v=T20MCJ5bi0w>

Dealing with Smart Meters

Reports from subscribers (unverified) tell of doctors being instructed by the Australian Medical Association (AMA) not to accept Electro Hypersensitivity or smart meter cases. Here is direct quote from one account: "This doctor went totally mad with me, when I mentioned to him, that my pain in the heart came when I did

get a smart meter. He jumped out of his chair and shouted at me, like a mad man, 'I do not want to hear that word Smart Meter again. I do not want more trouble with the Government.'" Looks like another instance of the establishment closing ranks against known collateral damage.

One of our contacts, Chandra Easton of Brisbane, is compiling a list of GP's more sympathetic to EHS patients. If you know of any who are, email chandraeaston7@gmail.com



An example of the home interface that was one of the idealistic selling points of the smart grid, e.g. to "help customers save money on their electricity bill". Not surprisingly it has yet to see widespread use.

"Smart Meter Nightmare"

The following graphic account of dealings with one electricity supplier was received from a reader; one of many persons who have felt compelled to move interstate from Victoria to escape the mandatory smart meter roll-out. It

is offered without comment or verification to illustrate what can possibly happen if you are EHS. "They (the electricity company) admitted that between 5-10% of the population are really sensitive to these radio frequencies, but despite my doctor's certificate, and desperate pleas, they still refused to help." <http://www.emraware.com/documents/Smart Meter Nightmare.docx>

Damage Control

Once again we find ourselves surveying the carnage of a heartless corporate vision, the purpose of which was only ever to boost profits and get the public to subsidise the means for doing so. The UK's Smart Meter Rollout Is a Government IT Disaster Waiting to Happen. <http://diginomica.com/2015/03/30/the-uks-smart-meter-rollout-is-a-government-it-disaster-waiting-to-happen/>

Table 2. Effect on People's Lives

Effect

1. Having to go on a disability pension
2. Not being able to use part of one's house
3. Restricting freedom of movement
4. Spending a lot of money on shielding products
5. Causing financial problems
6. Causing relationship problems
7. Having to undergo otherwise unnecessary medical investigations
8. Needing to see a psychologist and doctors
9. Producing general deterioration in quality of life
10. Needing to restrict time spent using a computer
11. Needing to avoid all EMR-emitting devices
12. Being unable to drive
13. Causing secondary stress
14. Having to temporarily move out of one's home while it was being shielded
15. Developing concerns about long-term effects of exposure
16. Relocating bedroom
17. Decreased performance at work
18. Being unable to work

19. Being able to feel normal only when away from home
20. Causing several issues, such as lethargy or cognitive impairment, secondary to sleep disturbances
21. Needing to move into a caravan 25 km out of town
22. Sleeping in a van for 6 months
23. Relocating to another state

Dr. Lamech concludes that smart meters
“May have unique characteristics that lower
people’s threshold for symptom
development”. In other words, you are sick
but take longer to realise it. AAEM Supports
Research Showing Health Impacts from Smart
Meters. [http://www.electrosmogprevention.org/
smart-meter-resources-links/alert-aaem-
supports-research-showing-health-impacts-
from-smart-meters-oct-2013/](http://www.electrosmogprevention.org/smart-meter-resources-links/alert-aaem-supports-research-showing-health-impacts-from-smart-meters-oct-2013/)

Here is another report on the above finding and
its implications for Australia. First Peer-
Reviewed Study of Health Symptoms Associated
with Smart Meters Published in US Medical
Journal. [http://stopsmartmeters.org/
2015/02/04/first-peer-reviewed-study-of-
health-symptoms-associated-with-smart-
meters-published-in-us-medical-journal/](http://stopsmartmeters.org/2015/02/04/first-peer-reviewed-study-of-health-symptoms-associated-with-smart-meters-published-in-us-medical-journal/)

If anyone still believes the smart grid is a noble
effort to save humanity and the planet, this cost
benefit analysis prepared by Deloitte for the
Australian Department of Treasury and Finance
provides valuable insight into the underlying
mindset. [http://www.smartmeters.vic.gov.au/
__data/assets/pdf_file/0003/138927/Deloitte-
Final-CBA-2-August.pdf](http://www.smartmeters.vic.gov.au/__data/assets/pdf_file/0003/138927/Deloitte-Final-CBA-2-August.pdf)

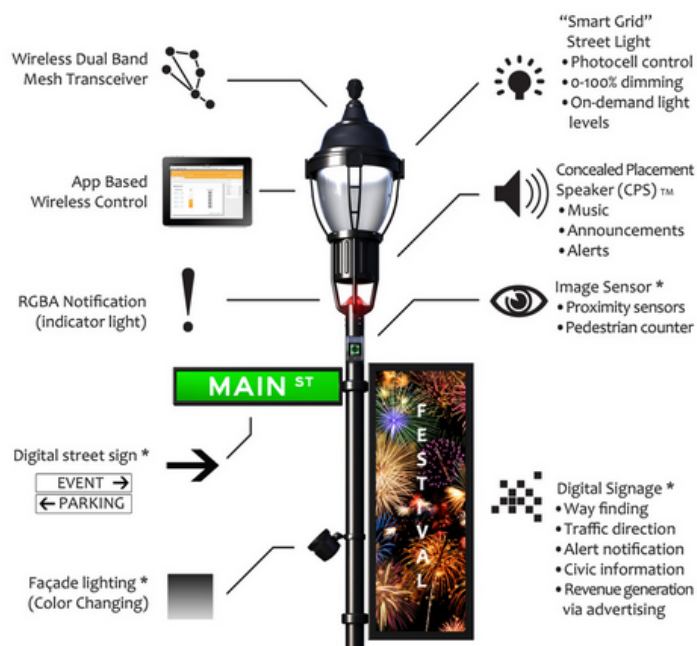
Hundreds of Smart Meters Simultaneously Explode. <http://www.takebackyourpower.net/news/2015/04/01/hundreds-of-smart-meters-simultaneously-explode/>

Technology you can trust?

www.heraldsun.com.au/news/victoria/ausnet-to-pay-125-each-to-230000-customers-for-smart-meter-it-system-glitch/story-fni0fit3-1227293346539

Due to a successful legal challenge, the Arizona Corporation Committee was forced to reverse a \$5 per month fee to be payable by those astute citizens opting out of the smart meter scheme. State Settles Smart Meter Debate. <http://www.azcentral.com/story/money/business/2014/12/12/state-settles-smart-meter-debate/20343257/>

Snoopy Street Lights



In a welcoming gesture to shoppers, the Sunshine Coast Council have announced they will be transforming the Maroochydore QLD business district into an omniscient "smart hub" by installing smart street lighting that collects all kinds of data on passersby. Here's a short professional video on the concept. <https://www.youtube.com/watch?v=Bs8upeQymNM>

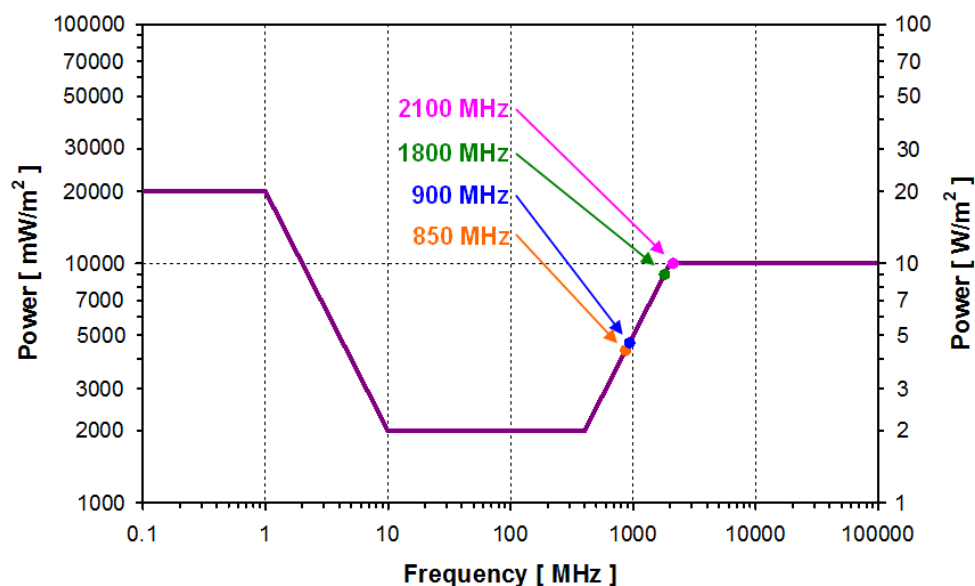
Each system has a microprocessor "essentially the same as iPhone". If this trend continues, it seems there could eventually be more people and resources devoted to "watching" than are involved in doing anything productive.

Intellistreets Street Lights Record Conversations and Take Your Picture. <https://www.youtube.com/watch?v=QF4K62iCyR8>

4GX - Telcos' New Baby

One of the reasons world governments saddled free-to-air viewers with digital TV, and its attendant teething problems, was so they could sell off the prized 700MHz spectrum. Telstra purchased a big chunk of it and is now rolling out "4GX", claimed to be twice as fast as 4G. However, this frequency is lower than most currently in use; and the lower the RF frequency the deeper it penetrates the body. This dynamic is reflected in the safety standards set by ARPANSA; about twice as strict

as for 2100MHz.



A chart of permitted exposure levels based solely upon absorption characteristics.

Complaints from our contacts have already started to roll in. "Are you guys in NSW having problems with Telstra's upgrade from 4G to 4GX? There are a lot of health problems occurring here since the upgrade. Healthy middle aged people are having heart attacks, some dying. Telstra customers are now feeling a heating sensation when using their mobile phone. Telstra customers got sick the very same day that they know the upgrade occurred." This may be an exaggeration, but, as usual, apart from a couple of obscure papers, there appears to have been no prior safety studies dedicated to this specific new frequency.

This investigation concluded that low intensity RF fields at 700 MHz can alter electrical activity

in hippocampal slices from rat brain. The hippocampus is involved in spatial learning and memory processes (see the charts). http://iopscience.iop.org/1742-6596/329/1/012033/pdf/1742-6596_329_1_012033.pdf



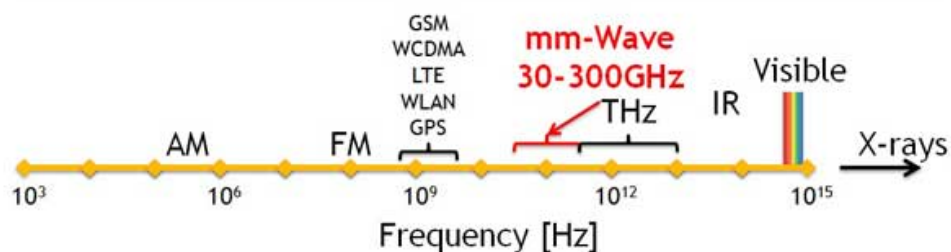
A portable 4GX hotspot modem that can simultaneously service up to ten users, thus turning you into a shared mini phone tower. Looks like more radiation for the subscriber, and reduced infrastructure costs for Telstra.

One thing that hasn't changed is that commercial webpages persist in depicting customers in blissful ignorance mode, pressing their phone against their skull. Is it ethical to graphically reinforce a habit that is now explicitly warned against in nearly every phone operating manual? <https://www.telstra.com.au/mobile-phones/coverage-networks/telstra-4gx>

According to this research, it seems 4GX

customers might be less affected if they hold their phone so its antenna is oriented sideways. Could this be a new kind of street-wise salute? Don't count on anyone recommending it "officially" for safety reasons. Effects of Field Orientation During 700-MHz Radiofrequency Irradiation of Rats. <http://www.ncbi.nlm.nih.gov/pubmed/2694195>

Millimeter Waves



In what would be the biggest shakeup in recent history, mobile phone service providers are eyeing 24GHz "millimeter waves" for their forthcoming 5G networks. This frequency is similar to that used in airport body scanning booths. While signals in the currently occupied 300MHz-3GHz "sweetspot" band can spread over many square kilometers and pass through buildings, shorter wavelength mm-wave signals are more confined and prone to bouncing off solid objects. This necessitates a denser deployment of antennae which emit steerable beams to each cluster of users. <http://www.redorbit.com/news/technology/>

[1113259867/wireless-spectrum-boost-for-next-generation-mobile-broadband-fcc-102014/#rBtVpoeZAc856xO3.99](https://www.fcc.gov/1113259867/wireless-spectrum-boost-for-next-generation-mobile-broadband-fcc-102014/#rBtVpoeZAc856xO3.99)

Millimeter Waves May Be the Future of 5G Phones. <http://spectrum.ieee.org/telecom/wireless/millimeter-waves-may-be-the-future-of-5g-phones>

Smart Antennas Could Open Up New Spectrum for 5G. <http://spectrum.ieee.org/telecom/wireless/smart-antennas-could-open-up-new-spectrum-for-5g>

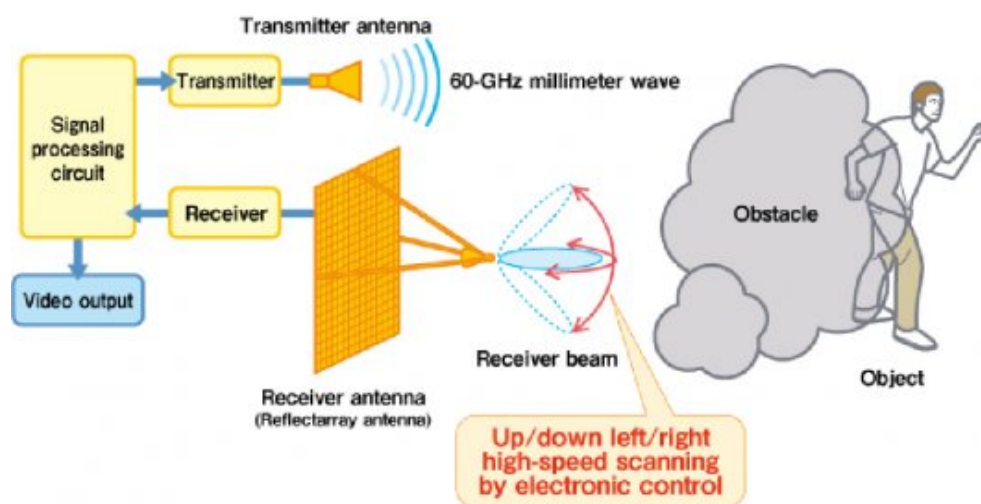
Some researchers contend that, for health reasons, this is the part of the spectrum that telecommunications should have employed from the beginning. The higher the frequency, the less it enters organic tissue; only about a millimeter deep for 24GHz. Beamed energy is also easier to avoid, providing you know where it is ... and it is not deliberately trying to target you. <http://spectrum.ieee.org/tech-talk/telecom/wireless/sending-data-on-twisted-radio-waves>

Even though biological absorption may be less, this does not entirely rule out adverse responses triggered by a whole range of new mechanisms. Air Force Research Laboratory Bibliography on the Biological Effects of Millimeter Wave Radiation. <http://www.icomw.org/documents/usmarine3.pdf>

Millimeter Wave-induced Vibrational Modes in DNA. <http://www.ece.rice.edu/~daniel/papers/japptox.pdf>

Impact of Low Intensity Millimetre Waves on Cell Functions. http://thz.caltech.edu/siegelpapers/IET_Dec2010.pdf

Protein Changes in Macrophages Induced by Plasma from Rats Exposed to 35GHz Millimeter Waves. <http://www.dtic.mil/dtic/tr/fulltext/u2/a533666.pdf>



The diagram above suggests individuals can be detected behind certain obstacles using the differentials between reflected millimeter waves. <http://www.gizmag.com/nhk-millimeter-wave-tv-camera/15411/>

Light Years Ahead





We may have to wait a few years longer for a totally safe, light-based global communications network. Here are a few recent developments.

Li-Fi Gets Ready to Compete with Wi-Fi. <http://spectrum.ieee.org/telecom/internet/lifi-gets-ready-to-compete-with-wifi>

Experiment in Vienna Shows That Ground-to-Satellite Communication with Twisted Light Is Possible. <http://spectrum.ieee.org/tech-talk/telecom/wireless/experiment-in-vienna-shows-that-groundtosatellite-communication-with-twisted-light-is-possible>

Fujitsu Forges Li-Fi-like QR Code Replacement. <http://spectrum.ieee.org/tech-talk/telecom/wireless/fujitsu-forges-lifilike-qr-code>

Microwave Backscatter

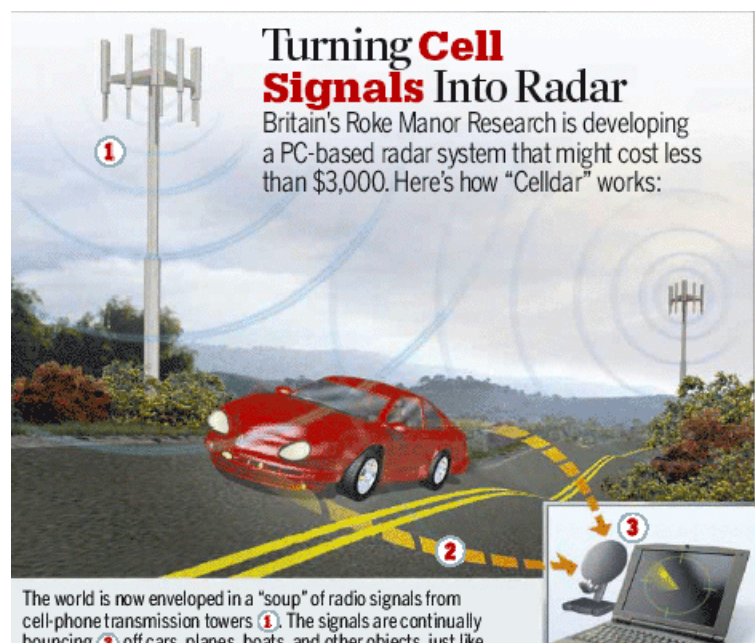
Below are three examples of emerging technologies that have nothing to do with the consumer marketplace, but maintain a keen interest in seeing loads of RF dumped into our collective living space. They co-opt

"backscatter", or the composite illumination (noise) arising from all existing microwave emitters within a given area.

Passive Radar

Celldar was developed early this decade as a joint venture between UK defense firms Roke Manor and BAE Systems. It is undetectable in use since all that is required is the monitored Doppler shift, or time differenced echoes off an object, created by the emissions of two or more mobile phone towers. Moving objects can be picked out from background radiation levels of any geographical area and observed as blips upon a visual display.

Combined Use of Various Passive Radar Range-Doppler Techniques and Angle of Arrival using MUSIC for the Detection of Ground Moving Objects. http://www.ee.washington.edu/research/funlab/imaging/chan_report_8_18.pdf



radar. By tuning antennas to detect two or more of these echoes from a car, software on a laptop can plot the car's location.



To the right, simulation of a Celldar-equipped drone in operation. Those purple dots are cars, people, sheep, etc.

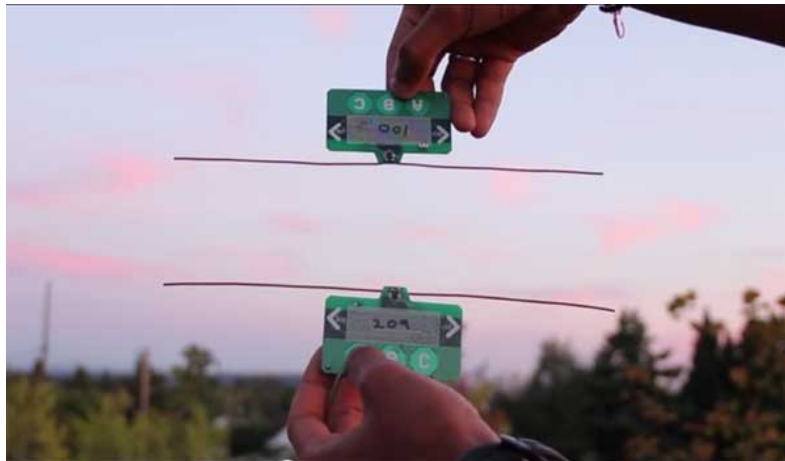
How Mobile Phones Let Spies See Our Every Move. <http://www.theguardian.com/uk/2002/oct/13/humanrights.mobilephones#art>

Celldar Radar. <http://67.225.133.110/~gbpprorg/mil/radar/celldar.pdf>

Here is one commentator's view. "I had a friend who was involved in the security for a big birthday party Nelson Mandela had a few years ago, with Bill Clinton and the like in attendance. They monitored the positions of everyone at the party in real time to within a couple of metres, by using their cellphones. The thing about 'Celldar' is that it uses passive reflections, so they will be able to track any moving object,

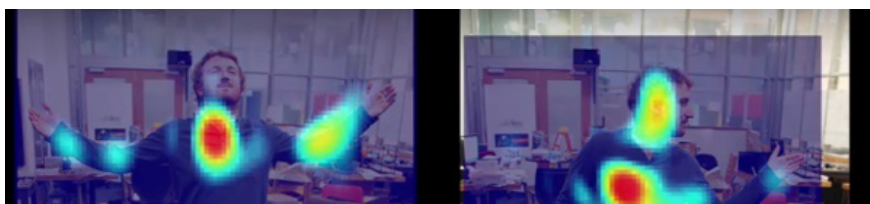
whether or not it is carrying a cellphone. Now, I am becoming more and more convinced that this is the REAL reason why cellphone radiation levels are being pegged at such high levels."

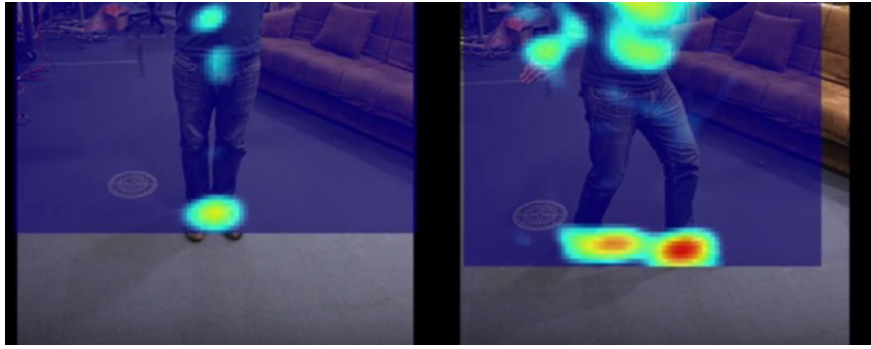
Parasitic Devices



Will the day come when we all have to wear protective foil suits because every electrical device is powered by ambient microwaves? "We can re-purpose wireless signals that are already around us into both a source of power and a communication medium." Wireless Devices Go Battery Free with New Communication Technique. <http://www.washington.edu/news/2013/08/13/wireless-devices-go-battery-free-with-new-communication-technique/>

X-ray Vision

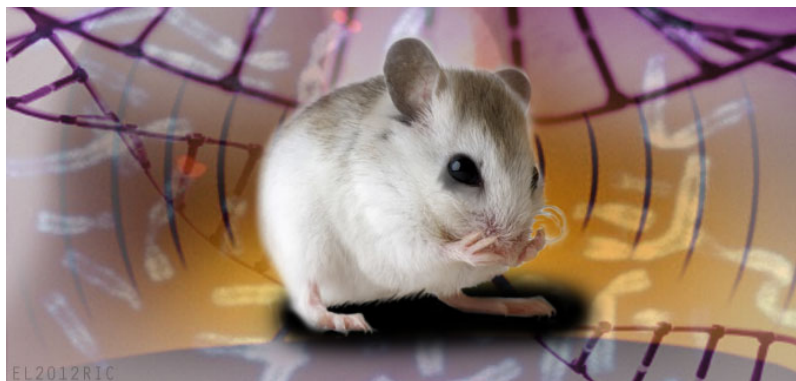




This new generation of portable surveillance devices can covertly monitor your movements inside your own home, through walls, employing nothing more than the "safe" radiation emitted by a domestic wireless internet modem. It works because the water content within body tissue absorbs microwaves and thus stands out to sensors against an inert background.

Router Vision. <http://physicscentral.com/explore/action/router-vision.cfm>

Soiling the Gene Pool



Radio Wave Gene Manipulation

â€œSome laboratory mice were given specially

engineered insulin-producing genes. These genes were then remotely activated using radio waves. This could mean a whole new field of medical procedures in which we turn genes on and off at will." Researchers at New York's Rockefeller University relied upon injecting the mice with nanoparticles. Not an edifying thought to keep in mind next time you receive a vaccination.

Similar results have been achieved without injection of nanoparticles by employing mutated cells that produce their own. "However, as Nature magazine explains, this would require growing tumors inside humans to actually get these cell cultures in place, which means the treatment isn't yet ethically permissible in humans." Switch Mouse Genes Off and On with Radio Waves. <http://io9.com/5908065/scientists-switch-mouses-genes-off-and-on-with-radio-waves?tag=genetics>

<http://www.redicecreations.com/article.php?id=19681>

Gene Expression

So, what about unaltered genes? Industry protectionists contend that RF at non-thermal levels do not impart enough energy to modify or break DNA structurally. However, there is substantial research indicating it can corrupt the normal pathways by which genes are expressed

into biological tissues or processes.

“We used the pulsed RF fields at a frequency of 2.45 GHz that is commonly used in telecommunications to expose cultured human HL-60 cells. We observed that 221 genes altered their expression after a two hour exposure. The number of affected genes increased to 759 after a six hour exposure. These results indicate that the RF fields at 2.45 GHz can alter gene expression through a non-thermal mechanism.” [http://](http://www.ncbi.nlm.nih.gov/pubmed/16107253)

www.ncbi.nlm.nih.gov/pubmed/16107253

Effects of 2.4 GHz Radiofrequency Radiation Emitted From Wi-Fi Equipment on MicroRNA Expression in Brain Tissue. [http://](http://www.ncbi.nlm.nih.gov/pubmed/25775055/?ncbi_mmode=std)
www.ncbi.nlm.nih.gov/pubmed/25775055/?ncbi_mmode=std

"Long term exposure of 2.4 GHz RF may lead to adverse effects such as neurodegenerative diseases originated from the alteration of some miRNAs expression and more studies should be devoted to the effects of RF radiation on miRNAs expression levels." After you click the pop-up box, hit the "back" button.

<http://www.uncommonwisdomdaily.com/the-potentially-detrimental-effects-of-wi-fi-20160>

DNA is a Fractal Antenna in Electromagnetic Fields. <http://www.ncbi.nlm.nih.gov/pubmed/21457072>

School Wi-Fi Woes



It is worth noting that the three genetics studies above all involved **2.4GHz**, the same frequency children are exposed to on a daily basis from school Wi-Fi. Yet manufacturers such as ARUBA, which supplies nearly all of Australia, continue to omit a simple switch that would allow wireless access points to be turned "off" when not in use. Next month, parents across Alberta, Canada will debate a resolution demanding this logical feature, as well as giving parents the choice to send their children to a Wi-Fi free school. Wi-Fi In Schools To Be Debated By Alberta Parents.

http://www.huffingtonpost.ca/2015/03/19/wi-fi-in-school_n_6904662.html

The Queensland Department of Education, Training and Employment (DETE) recommends

that school Principals ensure that parents and students abide by the manufacturers' guidelines for use of wireless devices. It is important to note that ARPANSA safety standards are based upon short-term heating of body tissue, and do not take into account biological effects that may occur from cumulative low-level wireless radiation exposure such as exists in a classroom setting. Safe Use of Technology - Your Guide.

<https://www.youtube.com/watch?v=LZ7o1sRjj2A>

Healthy Schools: A Call for Best Practice with Wireless Radiation. <http://ehtrust.org/wp-content/uploads/2014/07/Schools-and-Wireless-and-Health-EHT-Preliminary-DraftAugust-2014.pdf>



*Ceiling mounted wireless access point (WAP).
Normally one required for every 30 students.*

Canadian Medical Association Journal -
Scientists Decry Canada's Outdated Wi-Fi Safety
Rules. [http://www.cmaj.ca/site/earlyreleases/
7may15_scientists-decry-canadas-outdated-wi-](http://www.cmaj.ca/site/earlyreleases/7may15_scientists-decry-canadas-outdated-wi-)

[fi-safety-rules.xhtml](#)

"Canadian Provincial Health Officer Dr. Perry Kendall has admitted he does not say Wi-Fi is safe." This begs the question, why then has he approved its installation in their schools?

<http://parentsforasafeschool.blogspot.ca/2015/03/provincial-health-medical-officer-dr.html>

Here is an excellent slideshow-type presentation on Wi-Fi in schools to share with parents or teachers. Is Wi-Fi in Schools Safe? http://www.emraware.com/is_wifi_in_schools_safe.pdf

Wi-Fi in Schools: The Facts. <https://www.youtube.com/watch?v=kmcAXZ-o1K4&feature=youtu.be>

This letter by a research scientist to the Department of Education and Communities (DEC) NSW contains numerous examples of peer-reviewed research documenting the adverse effects of 2.4GHz. [http://www.emraware.com/documents/Letter to DEC on WiFi in schools_April 2015.pdf](http://www.emraware.com/documents/Letter%20to%20DEC%20on%20WiFi%20in%20schools_April%202015.pdf)

A Ten News presentation by George Negus entitled, The Dangers of Wi-Fi (Wireless Radiation WiFi WLAN Internet Electromagnetic EMF side effects). <https://www.youtube.com/watch?v=avANKBWCDaE>





The winning project of the Quebec, Grade 7 School Science Fair, revealed the effects of microwaves on living cells by comparing bacterial growth from cultures of E. coli that were exposed to EM radiation for different periods of time.

<http://exposciences.qc.ca/en/awards-winners/winner/record/5321/why-fi>

On 29 January 2015, the French National Assembly made history by passing a new national law to reduce certain types of exposure to wireless radiation electromagnetic fields. New National Law Bans WIFI in Nursery School.

<http://emfrefugee.blogspot.co.uk/2015/02/france-new-national-law-bans-wifi-in.html>

Byron Shire Council recently rejected a Telstra proposal for a tower close to a public school, and is subsequently formulating policy to exclude them within 500 metres. This figure is taken from the NSW Department of Education's own guidelines which the Mobile Carriers Forum

(MCF) is now trying to have abolished. More than just a coincidence? MCF Calls on NSW Education Department to Drop Buffer Zone Policy. <http://www.amta.org.au/articles/amta/MCF.Calls.on.NSW.Education.Department.to.Drop.Buffer.Zone.Policy>

Electro-hypersensitivity

What It's Like to Be Allergic to Wi-Fi. <http://nymag.com/scienceofus/2015/03/what-its-like-to-be-allergic-to-wi-fi.html>

The Israeli Supreme Court recently ruled that Wi-Fi in schools need not be banned, but at the same time recommended the Government should provide solutions to the children with EHS, and that if it does not "the doors of the Court are open". Back in 2013, the same Court ordered an investigation into the number of children suffering from EHS. Apparently, they found something worth worrying about. <http://www.emfacts.com/2013/07/the-israeli-supreme-court-ordered-the-israeli-government-to-investigate-the-number-of-children-currently-suffering-from-ehs/>

The Royal Academy of Belgium will hold a conference on 19 May entitled, "Environmental Idiopathic Intolerance: What Role for EMFs and Multiple Chemicals? Electrohypersensitivity (EHS) and multiple chemical sensitivity (MCS)". Scientific experts on these topics are to attend,

with the aim of providing arguments for the inclusion of related syndromes in the framework recognized by the WHO. You can register and see the impressive list of speakers here. http://appel-de-paris.com/?page_id=1667&lang=en



Microwave oven on wheels? A bus load of Wi-Fi for the kids.

How Smart is Dumb

"Does The Internet Make You Dumb? Top German Neuroscientist Says 'Yes' - And Forever." http://www.worldcrunch.com/tech-science/does-the-internet-make-you-dumb-top-german-neuroscientist-says-yes-and-forever/digital-dementia-manfred-spitzer-neuropsychiatry/c4s9550/#.VQ9LDuGvR_E

To boost sales, Apple reportedly has done a deal with IBM to put more of their wireless-only tablet PC's into schools. <http://www.crn.com.au/News/400970,australian->

school-among-worlds-first-ibm-apple-deployments.aspx?eid=61&edate=20150228&utm_source=20150228&utm_medium=newsletter&utm_campaign=cnweekly_newsletter

Schools Abandon Textbooks to Go All iPad.
<http://hereandnow.wbur.org/2012/03/23/schools-textbooks-ipad>

Why You May Want to Ditch Your eReader and Go Back to Printed Books. <http://www.washingtonpost.com/news/the-intersect/wp/2014/08/21/why-you-might-want-to-ditch-your-e-reader-and-go-back-to-printed-books/>

School FM Transmitters



Typical FM PA transmitter.

A teacher in Ontario Canada advises that staff are required to wear wireless FM transmitters if

there is a student in their class with a hearing impediment. She claims to be aware of several teachers who have had tumors on their chests or abdomens, in the precise location of the transmitter. Here is an example of the type of device described, although we do not infer these are the source of the problem. <https://simeoncanada.com/wp-content/uploads/Manual-500WU-Trilingual1.pdf>

Enter the "Pseudoskeptics"



Product Defense 101

Whenever there is an eruption in print about "unsafe" wireless technology, a legion of skeptics emerges to apply cosmetic relief. At best, they are easily dismissed techno-addicts parroting industry rhetoric. At worst, they are part of an orchestrated campaign to discredit

opposing views at the expense of the truth. Here is a typical example of this occurrence. Wireless Empire Strikes Back. <http://www.emfanalysis.com/wireless-empire-strikes-back/>

Readers may remember Michael Bangay, called upon as an "independent expert" by Byron Shire Council during a roundtable meeting on public Wi-Fi. On the occasion, he stated to the effect, "There are no health effects from EMR". During subsequent months, our group served Mr. Bangay with three Notices of Request that he substantiate this claim. We also felt obliged to advise that it is an offense under the NSW Crimes Act to provide false or misleading information to a public authority. Prior to drawing any conclusions, we are still awaiting his reply. <http://www.michaelbangayconsulting.com>

Listen to this story on EHS aired by the SBS TV news program "The Feed". It was strangely portrayed as one person's problem, not the rising national issue it is. <http://www.sbs.com.au/ondemand/video/425757252001/the-feed-april-23>

A steady stream of well-funded corporate propaganda helps keep skeptics on their career path. From the publication below, "Exposure limits are set well below the level at which adverse health effects are known to occur ...".

Known by who, one might ask. The same refers repeatedly to towers as "low impact" facilities. This glosses over the fact that most over 5 metres tall and standing alone are classified as "high impact", and therefore subject to local government approval, and genuine community input. Maybe they are hoping a few more towers will slip in under the wire without anyone (but us) noticing. http://www.communications.gov.au/mobile_services/towers_radiocommunications_facilities_and_em

http://www.gsma.com/publicpolicy/wp-content/uploads/2015/01/WEB-Wi-Fi_and_Health_Brochure_2015.pdf

Follow the money trail. At this critical stage in the debate, it is no surprise several studies have detected that research projects funded by industry are 2 or 3 times more likely to report no adverse effects from EMR. The revealing chart below is from a 2005 paper by Prof. Henry Lai of Washington University.

Funding Source	Industry	Independent
Number of studies	84	137
Biological effects found	32%	70%

Another article citing instances of perceived research bias. http://www.emraware.com/documents/brain_cancer_awareness.pdf

If you happen to be in Istanbul Turkey between 26-28 May, the International Commission on Non-ionising Radiation Protection (ICNIRP) is holding a conference entitled "Thresholds of Thermal Damage". Its premeditated scope of inquiry yet again fails to address well-documented non-thermal effects. <http://www.icnirp.org/en/workshops/article/workshop-thermal-damage.html>

A letter to the FCC by Professor Martin Blank, one of many eminent scientists demanding an immediate overhaul of safety standards. <http://apps.fcc.gov/ecfs/document/view?id=7520940937>

This paper deals with EMR from power lines, but explains in detail the recognised precautionary principle of "prudent avoidance". Prudent Avoidance Guidelines for Power Frequency Magnetic Fields. http://www.buergewelle.de/pdf/prudent_avoidance_paper.doc

Further Reading - Books

1) Science for Sale: How the US Government Uses Powerful Corporations and Leading Universities to Support Government Policies, Silence Top Scientists, Jeopardize Our Health, and Protect Corporate Profits. <http://www.amazon.com/Science-Sale-Government-Corporations-Universities/dp/1626360715>

2) Prostituting Science. We have not seen this book, but were notified that it is available from the source below.

Inkling Australia
PO Box 422
Maryborough VIC 3465

\$29.95 plus 7.50 for postage and handling.

**"You cannot hide the truth forever.
Absence of evidence is not evidence of
absence."**

UR the Experiment

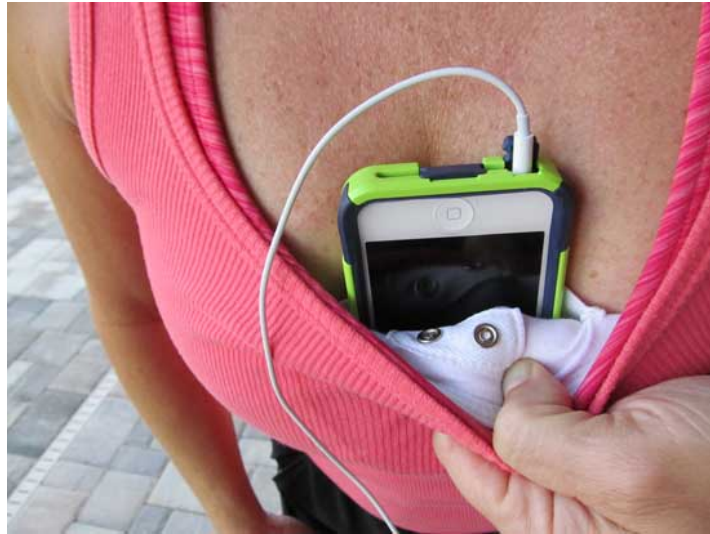
Monash University in Newcastle NSW is busy trying to determine what other institutions found out forty years ago, whether or not microwaves are good for people. As with any convincing rescue operation, it is "women and children first". Below are two studies presently underway, no doubt with the best of intentions.

The first embarks upon an exploration of where women carry their mobile phones, and what consequences might attend them for doing so. Persons of the fairer sex, as well as those who want to be, can participate in this survey.

<https://www.surveymonkey.com/r/XHH8BKD#>

And why would the academics like to know if it is not already suspected something is wrong?

Save the Girls - Make the Bra a No-Phone Zone.
<http://ehtrust.org/save-the-girls-make-the-bra-a-no-phone-zone/>



You can buy bras with a built-in mobile phone pouch ... or design your own (neither recommended).

The second study involves children, as in "now that they have been exposed for a while at the most sensitive part of their lives, let's check to see if there are any adverse effects". <http://>

coeh.monash.org/mophos.html

Want to drop out of being a life-long, involuntary test subject? There is a worldwide movement toward EMR sanctuaries. One of our local supporters is seeking persons to help establish one. Preference is for no mobile phones, Wi-Fi, power lines, smart metering, or generators, and to be located in a warm climate. Contact Vyvyan Stott, PO Box 257, Mullumbimby NSW 2482. Phone: 02 66 84 5384.

Here is a networking website dealing with the same. <http://electroplague.com/>, <http://electroplague.com/2014/09/21/ehs-refuge-in-australia-people-needed/>

Keen to be Green



Everyone will be happy in low emission utopia, especially businesses that will have lots of new products to sell you. But are they safe?

The well-meaning "green" contingent in Byron Council has buoyantly proclaimed our Shire will be the first in Australia to attain zero Carbon emissions. <http://www.echo.net.au/2015/03/full-steam-ahead-for-byrons-zero-emissions-future/>

We were thus tempted to have a closer look at the "free" advisory body that seems to have latched onto them, Beyond Zero Emissions (BZE). Its classy website gives the impression they are an altruistic, "independent, not-for-profit" promoter of government sanctioned, non-polluting energy solutions. They even accept donations. <http://bze.org.au/>

At the time of this writing, however, BZE is soliciting an annual payment of up to \$25,000 for businesses to appear on their associated site, Energy Freedom. The page linked below attempts to define this mixed relationship, followed by display ads for enterprises that have already signed up. It states, "Energy Freedom is a partnership between Beyond Zero Emissions and successful and reputable organisations which we believe can play a strong part in transforming Australia's buildings into zero emissions buildings, however, this is not to be taken as an endorsement by Beyond Zero Emissions." <http://energyfreedom.com.au/about/>

Then there are these pages, directing viewers

toward "an energy retailer that supports clean energy", and "great offers". <http://energyfreedom.com.au/energyswitch/>, <http://energyfreedom.com.au/rewards/>

All this leaves us wondering about the fate of trusting persons who contact BZE assuming they will receive impartial advice, and are then purposely funneled toward this select group of commercial enterprises.

Curious about what also bodes to be a subservient stance on smart metering, wireless technologies and wind farms, we questioned BZE's head office. Here is their written response, "We appreciate your offer of discussing your concerns with our team, however there have been a number of studies into the technologies you've mentioned, particularly wind farms, and no health implications have been found, and we will continue to advocate for their take-up." It goes on to say, "There are a number of health implications from coal mining and burning, and from unconventional gas extraction which have been proven harmful, which I'm sure you're already aware of."

Very cute of them to put forth not trafficking in coal and gas as their environmentally green credential. However, a genuine solution does not simply shift the targeted problem to another domain, namely human exposure to

microwaves; an officially declared class 2B
carcinogen.



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