

FROM BOON TO BANE – ELECTRICITY TODAY

CONTENTS

<u>INTRODUCTION</u>	1
<u>BRIEF HISTORY OF ELECTRICAL SENSITIVITY</u>	
Phase 1 – Early Signs	2-3
Phase 2 – The Microwave Frequency	3-5
Phase 3 – The Right to Radiate	5-9
<u>OTHER ISSUES</u>	
Chemical Pollution	9-10
A Major Factor in ES/General Health	10-11
Electrosmog Harms and Kills us – Evidence, Reports and Studies	12
Aberrant Behaviour	13
The Bridgend Suicide Cluster	14
Medicine	15
The Magnetosphere – Consumption of Electricity	16
SUMMARY.....AN IMBROGLIO?	17
<u>APPEAL FOR EUROPEAN PARLIAMENT INTERVENTION</u>	
A Plea for All	17
A Plea for ES/EHS Victims	18
<u>EU CHARTER OF FUNDAMENTAL RIGHTS – SYNOPSIS OF ARTICLES INFRINGED</u>	
The General Public incl ES/EHS	19-20
Specific to ES/EHS Victims	20-21
Appeal to the Court	21
<u>REFORM</u>	
Recognition and Publicity	21
The Medical Profession	22
Regulators of Non-Ionising Radiation	22-23
Regulation of Chemicals	23
The Industry – Modification and Moratorium	24-26
Summary of Reform	26
<u>UPDATE APRIL 2009</u> ----- and ----- <u>CONCLUSION</u>	26-28
<u>ANNEXURES</u>	
A Signs and Symptoms of Electrical Sensitivity – 1995	29
B US Military Research – Microwave Radiation – a Stealth Weapon	30
C The Power of ELF to Unbalance Mind and Body	31-32
D The Freiburger Appeal October 2002	33-34
E Wireless Fidelity (WIFI) Case Studies	35-36
F Signs and Symptoms of Electrical Sensitivity 2008	37-39
G Evidence, Reports and Studies – harm and death from Electrosmog	40-43
H Conclusions on Electrosmog in USA – Amy Worthington	44
I The Bees.....and the Birds	45-46

DEFINITIONS AND ABBREVIATIONS

WHAT IS ELECTRICAL SENSITIVITY?

The prevailing but not unanimous view is that this disturbing condition is a 'functional impairment' due to a reaction, from mild to severe to Electrosmog – defined below. As victims can recover in time if staying in an Electrosmog free location, it is argued that their condition is not an illness per se.

However victims suffer from Microwave Sickness, more broadly Radiation Sickness and so, by definition, must be ill. Certainly, those with advanced symptoms do feel very ill. Functional impairment or a 'modern' illness – there is logic on both sides, but for brevity's sake this paper usually refers to illness without taking a view on the semantics.

- Electrical Sensitivity (ES) leads to a distressing condition that degrades the quality of life.
- Electrical Hypersensitivity (EHS) leads to a debilitating condition that is seriously disruptive to all aspects of life and work.

ES and EHS refer to the condition itself or to those who suffer from it. ES can be generic to both states.

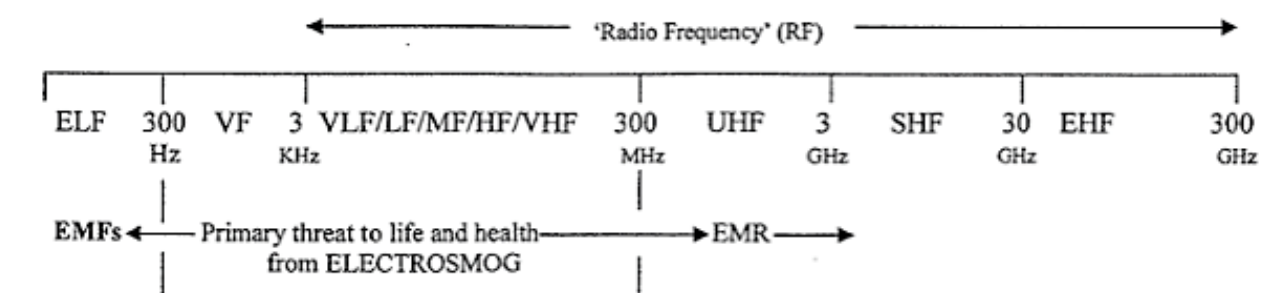
ELECTROSMOG A generic term covering all forms of artificially produced electric and magnetic fields, and electromagnetic radiation in the internal/external environment.

HERTZ (Hz) Cycles per second of a frequency; K = 1000; M = 1 million; G = 1 billion, cycles per second.

FREQUENCIES The oscillation (cycle) rate in Hz e.g.:

- ELF (Extremely Low Frequency): the brain 1 to 100 Hz; railway lines 16.7 Hz; 240v power supply 50 Hz; 2G and 3G mobile phones 217 Hz (and microwaves). 3G 10 Hz and 15 Hz also.
- VF (Voice Frequency) to VHF (Very High Frequency) – radios.
- UHF (Ultra High Frequency): TV's up to 850 MHz; mobile phones 900/1800MHz (2G); 1900-2200MHz (3G) and other wireless devices over 2000 MHz.....All IN THE:-
- Microwave band starting at 300MHz

THE ELECTROMAGNETIC SPECTRUM



Wave Lengths

With ELF, wavelengths are long e.g. 1Hz is 300,000kms, so the electric and magnetic **fields** remain separate, referred to as EMF's in this paper. They shorten progressively to e.g. at 1000MHz where the wavelength is just 30cm. In the microwave band the electric and magnetic fields are coupled and so form electromagnetic **radiation** (EMR). 'EMF's' is often used more broadly to denote all Electrosmog's emissions.

DIGITAL PULSING

2G mobiles added jarring, digital pulsing to microwave EMR. Modern TV transmitters (UHF) are well into the microwave band but are not pulsed; they will be with the roll-out of the digital TV service. Smart meters will add to this threat with utility company plans for 24/7 radiation of meter readings.

PREFACE

Everyone is potentially sensitive to Electrosmog; where it abounds in the world more and more people are succumbing to its electric fields and magnetic fields nearby and, further out, from its coupled electromagnetic radiation. Distress is most obvious in those (from children to the elderly) afflicted by electrical sensitivity.

This paper begins with a short account of their long struggle to gain recognition and medical help. It is also a submission for the restoration of their Fundamental (Human) Rights denied to them for so long – denied by a triumvirate of overseers who have seen nothing, whilst an untrammelled telecommunications/information technology industry has smothered the land with its Electrosmog infrastructure and risky, untested wireless devices, without concern for the welfare of the nation.

Victims of electrical sensitivity have sunk ever deeper into their bewildering illness, forfeiting their health and happiness, some their livelihoods. More broadly, an incalculable swathe of the population, with *no overt or detected* signs of electrical sensitivity at first, are also losing their health to Electrosmog – and some, their lives. Fundamental Rights for everyone are also at stake.

The Industry has converted millions of homes into de facto mini base stations with powerful microwave wireless devices irradiating each other and, yet more dangerous, *pulsed* extremely low frequency (ELF) ‘radiation’ as well. These use ELF frequencies that match, or are close to, the human brain’s ELF (*non-pulsed!*) frequencies. Annex C will assist the busy reader to see why this is such an alarming development. Adding pulsed ELF to the already intolerable maelstrom of radiation was a reckless move. Worse still are plans for the imminent roll-out of the most powerful wireless device yet, with the same combination of microwave/ELF pulsed radiation. Mental and physical health are now even more in harm’s way, especially with our unborn and children.

This paper therefore calls for a moratorium and period of honest, careful re-assessment, in which the sanctity of life and our general welfare take precedence. Reform measures are proposed: of regulation at international and national level; of the medical profession; of one aspect of chemical pollution (chemicals can induce, then exacerbate electrical sensitivity and general health problems); and of course of the Industry itself. Above all, it is Governments who must follow the fine example of a small minority of nations already on the path to recognition and control of Electrosmog damage.

This is the single, most important measure: to recognise and *publicise* the truth: Electrosmog *does* cause Electrical Sensitivity – a modern illness – and can be detrimental to mental and physical health – even fatal – for anyone.

Electrosensitivity UK is a charity. Its Trustees aim to support sufferers from ES/EHS and to educate the public on this subject, but are constrained from active campaigning. Therefore this paper is supported by over 100 of the more active ES/UK members; many more are too handicapped to engage.

Completed in August 2008, the paper was withheld due to the distractions of the global financial crisis on policy makers. It is now released (April 2009) after an update at the end.

THE SCOURGE OF WIFI (ET AL)

**There is no shield nor hiding place from WIFI’s deadly reach
His sense’s reel, the pain sets in, his vision blurs, the words won’t come
No point in flight, too weak to fight, or plead with others’ breach
Of precious rights to health and thought, his zest for life now gone**

INTRODUCTION

‘We are all electromagnetic instruments of exquisite sensitivity’

Professor Geoffrey Hyland Biophysicist – Institute of Neusse Holzheim Germany

GENERAL

As the Swiss Government recognized in its FOEN Report 2005 ‘Electrosmog can be harmful to our health’. This report prescribed a legal instrument seeking to reduce the threat to Swiss people from all sources of EMF and EMR (from non-ionizing radiation). Sweden had been at the forefront of ES recognition as a modern illness for some years and had already accepted the term and condition. Otherwise European and most other States had given scant attention to an escalating health problem. Meanwhile the ES toll mounted as victims were harmed by the inescapable proliferation of Electrosmog, especially EMR. In 2008, after some 15 years of cellular (mobile) phone use, about 10 years for most users, fatal brain tumours and deafness causing acoustic neuromas are emerging on a global scale, with Governments deferring to their scientists embodied in their regulatory agencies for judgment, who in turn defer to the telecommunications industry.....all in time honoured fashion. The medical profession, in the main, averts its gaze.

22 young people, all living in Bridgend S. Wales have committed suicide over the last 18 months. Search for a common cause by one researcher has established ‘clear circumstantial evidence’ that living closer than is usual to the more powerful 3G mobile phone masts ‘may have triggered (clinical) depression in those who took their lives.’ The Government and the Mobile Operators Association have issued swift and typically uncompromising rejections of this provisional claim. A detailed history of each victim’s personal exposure at home and at work to all components of Electrosmog should now be taken, as the researcher has acknowledged. In all probability this tragic blight on Bridgend is a perfect backdrop to this paper. (As at 23rd June 2008)

THIS SUBMISSION

This paper is initiated by members of Electro Sensitivity UK, a support group for ES victims whose chronic suffering has been largely ignored since inception. The purpose of our submission is to plead for urgent intervention to stop the imminent deployment of yet more wireless technology (even more dangerous), to seek measures for the correction of intolerable levels of EMR already in place, to reform an alarmingly dysfunctional, regulatory system and to seek medical and general recognition.

Such pleading is based on our conviction, as victims of uncontrolled, untested technology that this is ruining our wellbeing and health, disfranchising us from leading normal, happy lives; harming personal relationships with friends, neighbours and even family; restricting our ability to move about freely in society and the land and exposing us at times to ridicule. We suffer from discrimination at work, as do a few ES children in schools. We can lose our livelihoods due to suffering impairing our physical and mental capacity.

All this we claim is in callous disregard and so breach of several Articles of our Human Rights / EU Charter of Fundamental Rights.

STRUCTURE

We use our experience and some terminology of the UK but there is close correlation with all developed European States and more generally worldwide. Evidence of harm to health and death itself from EMR is now in the public domain; we therefore avoid substantiating every assertion in this paper. We have drawn on the vast library of high quality peer reviewed research now available; a reference list would take many pages and now, in 2008 much of it is vindicated.

ES has evolved in three distinct phases in concert with the incremental build up of Electrosmog in the environment over several decades. It now threatens *all* the population; our concern is extended to everyone at risk.

A BRIEF HISTORY OF ELECTRICAL SENSITIVITY

Phase 1 – Early Signs

The ELF Threat Until the ‘plastic revolution’ the power supply to homes and workplaces was by rubber coated cable. Rubber perished over time, so all cable had to be protected in metal conduit, well ‘EARTHED’, to guard against electrocution. This method fortuitously also stopped electric fields. Also a ‘spur’ system (like spokes on a wheel) sent individual supply to different areas. There were few appliances. The EMF load on users was very low.

- Then came plastic sheathing, more appliances and the ‘ring main system’ to supply them. Electric fields invaded.
- Worse, 50 Hz alternating current (60 Hz in the USA) produced alternating ELF magnetic fields to a much greater extent. ES had arrived but very few people knew it.
- Older ES people today can recall the early signs of ES: the flushed face (mast cells) especially after watching TV; memory and cognitive problems; and especially, poor sleep in buildings but never outside when camping.
- As the national transmission and distribution networks expanded and encroached on habitation so the EMF load on some people increased.

THE COMPUTER/VDU PHASE

Swedish Recognition By 1993 ES, already a problem, had shown a marked increase ascribed by Sweden to ‘VDU Sickness’. Early VDU’s produced electrostatic fields, electric and magnetic alternating fields and even UHF radio frequency (RF) fields. VDU operator symptoms were warmth and tingling of the face, concentration loss, dizziness, headaches and nausea, teeth and jaw pains, ache in muscles and joints and cardiac palpitations. (All these would feature in any 2008 list of ES symptoms)

FEB The Association for the Electrically and VDU Injured This support group clearly defined ‘VDU problems and Electrical Hypersensitivity’ claimed 1600 members and postulated at least 10,000 more sufferers in Sweden. FEB knew this was a global problem: it continually received requests for information from Norway, Denmark, Finland, USA, Switzerland, Estonia, Germany Austria and Australia. FEB’s convincing explanation of EHS may have led to 2G computers/VDU’s that were safer more quickly. The Swedish Government certainly took note.

Swedish Action In December 1993, Sweden’s National Electric Safety Board released an interim report on low level ELF magnetic fields, summarizing its views:

- A strong suspicion of a link to childhood leukaemia.
- A reasonable suspicion of a link between occupational exposure and cancer in adults.
- A weak suspicion of a residential fields exposure link to adult cancer.

It reiterated limits for new schools, daycare centres and playgroups.

Comment The beginning of decisive recognition and action in 1993 should have left no one in any doubt of ES being a genuine illness, probably leading to serious disease – just at this early stage from the power supply only (the ELF threat). Sweden’s lead was both timely and exemplary.

STATUS OF ES/EHS VICTIMS BY 1995

Recognition None, except by support groups, few in number. Mainstream medicine’s national associations, Governmental Health Departments and regulatory watchdogs were unmoved. ‘Conclusive proof was necessary’.

Symptoms A list of typical symptoms as they were seen then by Powerwatch UK, the leading UK support group, is at Annex A. The mildly ES would suffer some of these symptoms, the EHS most of them. Mild to acute their suffering could be tolerable when counter measures were possible but, even then, the lives of EHS victims were severely disrupted. It was described as 'like having influenza that never quite breaks out.'

Treatment None from the State. Patients claiming to be ES were referred by their doctors – untrained in ES – to psychiatrists for diagnosis of clinical depression, in vogue at the time. Bewildered and mis-diagnosed, anti depressant pill side effects compounding their problems, patients remained exposed to the real trigger of their illness, and deteriorated further. The anti depressant Imipramine drug was later identified as a liver toxicant. Those taking it over several years will have become even more sensitive to chemicals. EHS was inevitable.

Protection Reducing use of electricity by switching off many circuits in the home helped. Aluminum foil shields, earthed could reduce electric fields but not the main culprit, magnetic fields. We know that human beings have evolved over the millennia in harmony with the Earth's natural magnetic field. Man made magnetic fields do seem to affect the body's delicate biochemical systems and electromagnetic balance most harshly.

Summary of Phase 1

Over 50 years or so of progress the threat to health from ELF power supply and appliances had evolved from negligible in the house and office to quite serious. Thousands of sufferers from EMFs were now emerging but no help or recognition from the State was available. 'Electrical sensitivity' awaited entry to the medical lexicon, and other official recognition.

Thus far, just non-pulsed ELF power supply, together with electric trains, modern cars etc made up Electrosmog. However Phase 2 was already in its infancy with the advent of cellular (mobile) telephony.

PHASE 2: THE MICROWAVE FREQUENCY

GENERAL SAFETY

Military Research Painstaking objective military research is a good source of information and of the scientific 'truth'. In this context of microwave dangers it is worth reading 2 examples – the first one using microwave radiation as an eroder of wellbeing, the second into safety limits of quite low levels of pulsed microwave radiation. The results are revealing. Annex B

An Imprudent Choice Mindful of these and many other research examples of pulsed microwave dangers, several prescient scientists were alarmed when the cellular phone industry persisted with their initial choice, and duly warned of its potential danger. By 1997 there was a vast amount of research pointing to the biochemical and other adverse impacts on brain and body of low level (athermal) pulsed microwave radiation.

International Safety Limit The International Commission for Non Ionising Radiation Protection (ICNIRP) did nothing to revise its extraordinary choice in 1993 when it imposed a limit for microwave radiation – a THERMAL limit – that would be broken if tissue were heated by more than 1 degree C. Had the industry exploited this lax guideline to anywhere near the limit there would have been a short lived catastrophe. It did not of course, but this laxity from the world's regulator, did engender the attitude that much lower levels of radiation would be safe. Experience has proved they were not. The Commission's proviso was that further study was needed on athermal (low level) radiation effects to verify adverse ones on health already reported. So this radiation was to be let loose 'innocent until proved guilty'; 15 years on this is still the ICNIRP position.

DEPLOYMENT OF CELLULAR PHONES

1G Mobile Phones The 450 MHz (UHF) analogue phones had entered service in the late 1980's. Then below the 1000MHz start point for microwave they were **non pulsed** and not widely owned. They did not seem to have adverse health effects during their service, which became concurrent with the first 2G mobiles.

NB In December 2000 the ICNIRP lowered the microwave start point from 1000 to 300MHz. So 1G phones **had** been the start of microwave mobiles, but not pulsing.

2G Mobile Phones Entry into service of the 2G GSM 900, then European PCN digital systems well into the microwave band with a frequency of 1.7 to 1.8Ghz marked the first pulsed microwave assault on society in general and the ES in particular. It was not realized the pulsing would affect the body in a unique way.

- The coupled nature of the radiation meant both RF (1800 MHz) and the pulse repetition rate of ELF (217Hz) were now penetrating brain and body, as was the frame rate of 8Hz.
- The way ELF can disrupt the delicate balance and so working of the body's cells is detailed at Annex C. This research by US scientist Eldon Byrd from the Naval Surface Weapons Office brings out the vulnerability of mind and body to 'weak pulsed usually ELF magnetic fields'. It is chilling. In light of what its designers should have known about the disruptive potential of pulsed ELF, the 2G phone should never have left the drawing board. (Much worse was to come in Phase 3)

Unhindered Expansion In spite of reservations and warnings in Europe, the USA and elsewhere on the safety of this pulsed radiation, the telecommunications industry was allowed to expand the 2G network wherever it wished. The UK and Canadian Governments were not alone in forbidding their regional authorities to refuse planning permission for base station masts on health grounds. By 2003 most of Europe and the developed world were immersed in a sea of pulsing ELF and microwaves. The ES multiplied and wilted.

The Freiburger Appeal On 8th October 2002, 1000 German medical doctors – it is said there were some 3000 doctors, consultants and scientists by 2004 and 36,990 signatories in all - appealed to their Government to stop and reverse the proliferation of microwave radiation in Germany. This was, in their unanimous opinion, exacting by then a heavy toll on their patients: from minor symptoms of general malaise to serious and fatal disease. An extract of their Appeal is at Annex D.

- There will have been 10 years of use of 2G mobiles, enough for cancers to appear or perhaps 5 years of ELF attrition then 5 years of 2G cellular use.
- We feel there can be no starker testimony to the health repercussions of the uncontrolled expansion of Electrosmog and cannot understand how such an authoritative challenge was allowed to evaporate, leaving the industry free to ignore clear medical evidence against the safety of their cellular network on, surely, an epidemiological scale. 'Progress' and profit at the expense of health and life were to remain de rigueur.
- Scientists could safely be left to study the problem in their laboratories in languid pursuit of in vitro (laboratory) 'proof' of harm, their preferred source of evidence.

In 2008 they continue to study the issue for their political and industrial masters. In fact the German doctors had pinpointed electrical sensitivity but without training in the illness could not use its title. Their second list of symptoms (in which 'Learning, concentration and behavioural disorders e.g. ADD 'should have been included) could all have been, and are, classic symptoms of ES.

How many of the German patients with the initial symptoms will by now be in the doctors' first list, some dying or dead? To become ES and know it and take precautions may well save a victim from a worse fate.....the early onset stroke for example, increasingly frequent today. Ignorance of ES, leaving it to develop could well predispose a victim to an immune system (and endocrine system) in chronic decline with inevitable consequences.

The Freiburger Appeal was a microcosm of a health time-bomb on a global scale; it is tragic that it was swept aside by vested interests and ignorance.

STATUS OF EH/EHS VICTIMS BY 2003

Recognition In May 2000 Sweden gave formal recognition to ES, classifying victims diagnosed as 'disabled' and prescribed State aid for financial help to protect their homes from radiation. Employers were directed to be aware of ES dangers and to assist the ES by reducing Electrosmog and special arrangements.

By 2004 it was claimed that 250,000 ES sufferers were registered but some will have been misdiagnosed perhaps, or malingerers. Recent surveys reveal up to 290,000 genuine ES – over 3% of 9 million Swedes. Otherwise, there was still no formal ES recognition.

Symptoms To the Phase 1, internal threat at home and office from ELF (EMFs) was now added the insidious pulsed ELF and microwave radiation. Indoor protection was now much more difficult 24/7. For the ES, outside life had changed utterly: previously safe areas were safe no longer except for a few microwave free valleys or gullies etc. Symptoms worsened markedly. There was early retirement, Radiation Refugees fled to re-house themselves in safer spots. A few chose caravans. For most the walk in the park or the countryside of all but brief duration had to be carefully assessed, its pleasures and exercise benefits versus the radiation penalty. This did not mesh neatly with family and friends. More ES, more EHS and more perplexed misery.

Treatment No change: no recognition, so no treatment. That said, how would ES be treated? There will be no reliable drug, but correct diagnosis by sympathetic doctors, advice on precautions and counter measures, and financial help to e.g. a 78 year old, confused widow with but £1000 to her name, for expensive, anti-radiation products would be a turning point. (She is an ES victim).

Protection By now a niche industry was supplying items of protective clothing and radiation shielding. The manner in which EMF and EMR can ‘bounce’ around, reflecting off metal, even other shields is complex, and the entire subject is difficult for an ES victim, unschooled in much electrical theory to take in. Expensive meters are essential to help analyse the overall threat for the home. These could be hired but not everyone can cope with such a task. Both art and science, ES protection is also a business and dealing with it for the average sufferer can be very stressful and expensive.

SUMMARY OF PHASE 2

By 2003 ever increasing Electrosmog over 10 years with cellular pulsed ELF/microwave radiation now superimposed over Phase 1 ELF (EMFs) had increased the indoor threat and added a new all pervasive radiation threat outdoors. Cancer and other warnings from critics were ignored. A nation’s doctors rose up in Germany, and were ignored. The politics of science and state/industry funding research prevailed. Working ‘safely’; under the ICNIRP’s laxity, the controllers of a huge de facto experiment invoked their ‘Right to Radiate’ taken for granted for so long.

The unfettered expansion continued apace, more and more ES victims fell foul of it, or became EHS, with awful suffering. Except for Sweden there was still no recognition or other State assistance. Indoors and outdoors the ES were under siege.

PHASE 3 – THE RIGHT TO RADIATE

A Dangerous Intrusion The industry was confident that such studies as it chose to mount and partially fund with regulatory watchdogs would not in their findings raise issues prejudicial to their interests. The Right to Radiate was now extended to individual consumers with the invention and sale of 2 very over-powered wireless devices (we ignore long standing amateur radio fans) with no thought to their safety.

The Digitally Enhanced Cordless Telephone (DECT) The 1G analogue cordless telephone (safe and efficient) was now being replaced by DECT phones using the 1800-1900 MHz/100 (ELF) Hz pulse rate frequencies. The FOEN Report 2005 warned the Swiss people (and other countries who received it) that DECT radiation was powerful and users should keep as far from its 24/7 base station in the home as possible. The radiation’s range of 70 metres in buildings and up to 300 metres outside meant that neighbours were now well in its sphere of influence, flat dwellers being in an especially exposed position. Assailant, victims or both, most people were now under DECT radiation.

- DECT base station radiation is more powerful than a mobile base station. The handset remains at full power during calls, unlike a mobile which, sensing a strong signal, will reduce power up to a 1000 fold. An hour of DECT phone use must be more dangerous for the user's brain than a mobile for 1 hour in this example.
- The base station transmits constantly if left switched on, which for most people is essential; user and neighbours are needlessly at threat from the careless design.
- Gardens and detached houses were under radiation from others. Under mobile station radiation for so long, residents were now attacked by someone else's or each other's radiation in all residential, and workplace areas later on.

Wireless Fidelity (WIFI) Worse still however was WIFI the popular 'router' in the home that picks up Broadband Internet information and transmits it to/from laptop computers anywhere in the home or garden. The first models, called WILAN (Area Network) were designed for public areas such as airports. WIFI coverage grew by 73% in Europe in 2006. On the UK Government's direction WIFI was to be installed in 80% of secondary and 50% of primary schools. By 2008 most laptop enthusiasts have WIFI in their home. In the UK, the City of London's 350,000 workers can connect to the Internet anywhere 24/7. Plans are afoot to extend such blanket coverage to 12 other big cities. No thought has been given to the safety of this device. It is like DECT, a dangerous device that should never have left the design stage but for yet stronger reasons:-

- WIFI uses the highest microwave carrier frequency yet of 2.45GHz. The frequency is unlicensed. It is pulsed at a base frequency of 10Hz ranging up to 100Hz. Much of this **pulsed ELF** is in direct conflict with the brain's frequency range.
- Laptop in use, WIFI's power a few metres away equals a mobile base station's at 150 metres.
- ES people agree that WIFI can in some homes interact with DECT radiation from another direction perhaps because a harmonic wave is set up. In conjunction with TETRA (see below) the combined effect is more disruptive still for the ES. Some can collapse but stay conscious.

Already, by 2008 there have been several cases of debilitating reactions amongst WIFI users and passive victims of its radiation living further away. WIFI has a range of 70 metres most ES feel, and some EHS claim 100 metres. It is far too powerful and has a frequency mix that is the worst threat yet to brain integrity, and all cells. Details of some case studies are at Annex E. (Annex C repeated some US Naval research disclosing the disruptive power of pulsed ELF radiation.) By 2008 Hiband WIFI (5.3 GHz) was on sale.

Backlash to WIFI

UK Sir William Stewart, outgoing Chairman of the HPA and Dr Ian Gibson, former Chairman of the House of Commons Committee on science and technology have both voiced serious concern. The Chairman of the 35,000 strong UK Professional Association of Teachers has expressed deep concern to the Secretary of State for Health.

Schools across the country are dismantling their WIFI setups unilaterally, some under pressure from concerned parents, and teacher victims. We have ES children nowadays and they can be refused entry to a school that retains WIFI; a discriminatory mess.

Germany The German Union for Education and Science had already advised its members to resist WIFI installation in March 2006. In September 2007, the Government warned its citizens to avoid using WIFI wherever possible because of the risks it may pose to health (Federal Office for Radiation Protection) 'because it is a new technology and all the research into its health effects has not yet been carried out.' (Warnings were extended: use landlines instead of mobile phones and on Electrosmog in general.)

Switzerland In its Foen report 2005, discussing WILAN, a microwave frequency of 2.4 GHz.....or.....5.2 to 5.7 GHz was quoted depending on standard with 'the corresponding control signal pulsed with a frequency of 10 to 100Hz.' It mentioned that the maximum transmitting power could be higher than DECT base stations and their phones. (Comment: DECT/Handset is a worse threat than mobile phones).

Austria Dr G Oberfeld Public Health Department Salzburg has written an open letter to ‘Government/Head Teacher/Concerned Parent’ worldwide giving his Department’s official advice not to use WIFI in schools or kindergartens (or DECT phones).

France The City of Paris has decided not to carry on with its area coverage plan for the main city and has cancelled it. A moratorium has been imposed on any more WIFI in public libraries, citing the ‘genotoxic effects from WIFI waves, proven in the scientific literature.’

Canada Some Universities are dismantling their WIFI set up. Lakehead University in Ontario, its Vice-Chancellor cited ‘the weight of evidence demonstrating behavioural effects and physiological impacts on the tissue, cellular and cell level.’

USA There has been widespread alarm over WIFI throughout the US. A long and penetrating expose by Amy Worthington in the Idaho Observer Sep 07, on the reckless spread of Electrosmog and the same indifference to health by the authorities as we have in the UK, paints a stark picture of escalating illness and mortality. WIFI and its derivative WIMAX (see next page) are causing great concern. We reproduce her conclusion at Annexe H; her pithy eloquence is educative and echoes the thrust of this paper.

3G UMTS Cellular Phones

These more advanced Internet and other functions enabled mobiles had been entering service for a few years. Still with the ELF 217Hz signal they use a 2.2 GHz microwave frequency. More powerful signals than 2G (to carry the more sophisticated data) and due to an increase in mast density, they seem more troubling for the ES (yet another strand in the microwave and pulsed ELF assault). 10Hz and 15Hz pulse rates are also used, directly interfering with brain frequencies.

Terrestrial Trunk Radio System (TETRA)

TETRA preceded WIFI in some areas; it is an even worse threat to the ES (and others) so is placed here. It is a £2.9bn system for the UK police and other services. The frequencies chosen for voice transmission are a harsh intrusion into the brain’s frequency range. There were many reported cases of immediate distress especially among school children when a new TETRA mast nearby began transmitting – severe headaches and repeated nosebleeds. Generally poor sleep and stress problems but with police officers much more serious health effects were experienced. The media carried at least 2 cases of fatal brain tumour in 2 previously healthy police officers and there is one case of fatal oesophageal cancer. There has been much user and public concern but, the money spent, the government is insisting on full roll-out.

- Its frequency range seems almost bound to conflict with the brain’s delicate electrical balance and so function. Its pulsing signal of 17.66Hz cuts disruptively into the brain. In mid 2006 a second pulsing signal was added at 20.96Hz. Since then, more acute, wider ranging reactions have been reported; more severe loss of cognitive function, depression, nightmares, palpitations, chest pains, confusion and acute sleep problems.
- For the ES, TETRA can be cruelly disruptive. On its own, very debilitating symptoms are inevitable for those in its path, but in conjunction with WIFI radiation as already stated, it can render victims dysfunctional at once, unable to speak, think, talk or move but still conscious and so able to reflect on their ordeal after recovery. Such victims are EHS of course but their reaction illustrates just how vulnerable everyone, especially children are to this mind-meddling contraption.

We can see that the Police, Fire and Medical services need a dedicated common frequency but that this one was chosen is an indictment on the designers and regulators. All are patently ignorant of the vital and delicate electromagnet balance of the human brain and body and indeed most other species.

The Right to Radiate – More Abuse In January and February 2008 ES in many parts of the country noticed a sudden and unmistakable increase in radiation levels. Some mobile base stations have been measured and an increase in power confirmed.

- Even more demoralizing is that cellular transmissions seem to be radiating from the sky. Tentative deductions are that providers are now bouncing their signals off satellites. The ES haven of microwave free valley, gully or riverbed etc in 'dead ground' to line-of-sight microwave radiation is no longer safe. Where mobile phones of passers-by (stopped for enquiry) displayed 'no signal' there is now a low to strong signal.
- In the countryside, the ES generally have 'no place to hide'. Summer is here but there is no real escape outside from the neighbours' WIFI and DECT.

WIMAX In 2007 OFCOM announced plans to auction off part of the 2.5 GHz band, knowing this was perfect to overcome incipient capacity constraints with over-loaded underground telephone cables carrying Internet data etc. Using centrally placed masts a broad coverage of town, cities and rural areas is planned, and virtually underway. Described by the industry as 'WIFI on Steroids' this is a reckless decision.

Mast Network We understand that the WIMAX network will intermesh with existing cellular base station masts where possible. This sets up the harmonic wave probability and risk, and to achieve maximum coverage at minimal expense in rural areas, we understand that transmission power may increase considerably. There is even talk in the US of a single WIMAX mast to provide Internet coverage over 3000 square miles by using a signal of 66 GHz....that's 66 billion cycles per second, PULSED. Untested, unlicensed, unbelievable! Those living anywhere near WIMAX transmitters – frequency range is the same as WIFI now – will be in a hazardous position. (On startup of WIMAX transmitters near Gotene in Sweden, the local hospital was flooded by calls from people overcome with pulmonary and cardiovascular problems).

- Moreover, the receiver units which INTEL is building into laptops from now on, have been authorized to transmit their radiation at twice the power of WIFI (range 70-100 metres). Thus a WIMAX enabled laptop in just one household will be radiating many near and more distant neighbours some 150 metres away.
- This year INTEL estimates that 150 million Americans alone will be in the range of WIMAX. Proud claim or epitaph? Time will tell.

Digital TV The digital pulsed era is taxing for the ES. Any pulsed frequency is intrusive. Most ES have tried but rejected digital CD players and tend to avoid digital radio. The digital 'skybox' that enables analogue TV to receive the digital service is disruptive.

- In this context we are concerned that the new digital TV service that is to start soon in Cumbria, then cover the country by 2012 will be a major problem for the ES....and perhaps many others.
- It will add yet another source of pulsed radiation this time of 470-850MHz a UHF frequency well within microwave's start point, adding yet another component to Electrosmog. How much more can anyone take?

Smart Meters Utility companies have plans for 24/7 pulsing microwave meters for *sporadic* "easy-read" convenience; *another* radiation burden upon radiating/irradiated households.

STATUS OF ES BY APRIL 2008

Recognition The tide may be turning with signs of ES/EHS recognition at all levels but still no global acceptance at political level....the only key to change. Notable developments include:-

- The World Health Organisation who met in October 2004 to discuss hypersensitivity to electromagnetic fields (in Prague) and concluded then 'that 1.5 to 3% of the population suffers from it.' We suspect with WIFI etc now more widespread this percentage is, or soon will be much higher.
- The International Commission on Electromagnetic Safety (ICES) 30 scientists met from all over the world in September 2006 and signed 'The Benevento Resolution' which the ICES then issued. It stated 'there is evidence for adverse health affects, including cancer and EHS (electro hypersensitivity) from microwave radiation at current exposure levels and that a precautionary approach should be adopted.' Our comment: this warning should have included ELF (EMFs) but especially the pulsed ELF radiation now coupled to microwave radiation. However the recognition of EHS is welcomed.

- The Canadian Human Rights Commission On 15th June 2007 this Commission approved a ‘Policy on Environmental Sensitivities’ and classified EHS ‘as an environmental sensitivity and therefore a disability’.
- The Irish Doctors Environmental Association A recent statement recognized...’that a sub-group of the population are particularly sensitive...to different types of electro magnetic radiation...results in a variety of distressing symptoms which must also be taken into account when setting safe exposure levels for exposure to non-ionising radiation...and the siting of masts and transmitters’

For the long suffering ES/EHS these signs of some awakening are very encouraging. We regard the long standing Swedish recognition and now Canada’s (and Ireland’s doctors) as important precedent.

Treatment No change from Phase 2.

Symptoms A list of symptoms as we perceive them today is at Annex F. The aggregate load is for many too much to bear. Meaningful, enjoyable life is out of the question. Radiation Refugees forced to escape neighbours’ DECT and WIFI radiation are increasing; safe places to move to are decreasing. Not many victims can find, let alone afford what they now must have, a home clear of other habitation by 70/100 metres in any direction; when ‘WIMAX’ comes in, they will need up to 200 metres but even if found, they may still be under WIMAX radiation from masts. It is a hopeless predicament for most ES and EHS. Many EHS veterans are just wasting away, very thin, their metabolisms wrecked by Electromog.

- Some neighbours can cooperate but the normal response to a polite request for understanding and help is at best amused dismissal, at worst outright hostility. No official recognition, so no understanding. This invites ridicule and good relationships can be lost
- More and more people of all ages are becoming ES or deteriorating into the debilitation of EHS. Life is a struggle.

Protection ES protection products have increased in scope.....and price! Some EHS wear anti microwave suits with hoods – a few, fine mesh (10% silver) head nets inside as well as outside. Helpful but oppressive and one’s bizarre appearance in public is a problem. WIFI (that pulsed ELF wave) seems to penetrate all defences. As ever, the best protection now is avoidance but that is all but impossible today; it is now the Holy Grail for the EHS.

Summary Indoors and outdoors, with little or no escape from multi-sourced radiation, the disenfranchisement of ES/EHS victims of mental and physical health and the freedom anyone has a fundamental right to, is now complete.

The whole population is at risk to the overall load of Electromog and some will be in the early stages of ES without realizing it. An embryo radiated for over 8 months at work by WIFI and probably at home until born, is enduring combined ELF’s and EMR at a very high level. We can but hope our forebodings prove unfounded. As matters stand however, it seems to the ES that Children’s Rights, under Article 24 of the EU Charter are at serious risk of violation. Wireless radiation is said to be neurotoxic, carcinogenic and teratogenic (causes abnormality in the embryo).

OTHER ISSUES

GENERAL POLLUTION

The Chemical Factor in Electrosensitivity No discussion of ES is complete until the chemical factor in the illness is touched on. Most people develop a chemical sensitivity first. This can be full, Multiple Chemical Sensitivity (MCS). Food allergies can appear – the body weakens, and then ES sets in. The twin evils of ES and MCS work together in the victim’s decline and then, their protracted illness. Indoors and outdoors ES/EHS victims must try to avoid, to ‘dodge’ toxic chemicals just as they do EMF’s/EMR.

The ‘Load Factor’ Environmental medicine stresses the importance of assessing and reducing the load factor, a combination of Electromog and chemical pollution, of noise and even light pollution and of ‘mind

pollution – stress, emotion, unhealthy stimulus etc. A healthy diet and good hydration are essential for the ES but chemicals are a real problem today. Space dictates that we single out just one aspect of chemicals, little understood by others and, like Electrosmog, now completely out of hand – ‘The Nice Smell’.....and even ‘The Nice Taste’.

Cosmetics, Cleansers and Air Fresheners There is heavy use today by both sexes of fragrances, on their bodies, in the home, shop or office. Most fragrances today and many food flavourings are toxic, synthetic chemicals. To apply perfume or aftershave is to ‘ingest’ it, for much is absorbed through the skin and must be metabolised by our overworked livers today. Most cleansers must also ‘smell nice’, many homes and shops must ‘smell nice’; more toxic chemicals. Many homes use air fresheners – as a pre-eminent environmental US doctor urged in 2004 ‘get rid of these air fresheners – they will kill you’ (Dr William Rea Texas).

- 80% of MCS patients in the USA are women.
- Many ‘flavourings’ use a mix of synthetic chemicals that can be identical to perfumes, of which up to 90% are derived from petroleum products that can enter the body through inhalation, skin or ingestion and go directly to the brain.

Some cross the blood – brain barrier. Toxins enter the brain. These ‘nice smells’ are neurotoxins, carcinogens, allergens, hormone disrupters and liver toxicants. Some are so strong, they are pungent and can be smelt 50 metres away.....a sore trial for the ES.

The Cosmetics, Cleansers and Food Industries Sadly, these industries are seriously threatening the health of all people and predisposing many to MCS and ES. For those who are ES or EHS now, the chemicals they market so robustly are a significant factor in their decline and disenfranchisement. The health of women generally is especially at risk.

A MAJOR FACTOR IN ES AND GENERAL HEALTH (AND PROSPERITY?)

The Pineal Gland

This tiny gland in our brains (the ‘third eye’) is of critical importance as an endocrine organ/immune system supporter. EMF’s and EMR can directly disrupt its vital production of active chemicals, including neuro-hormones. This disruption is the root cause of poor sleep, insomnia and serious disease in some people; melatonin and serotonin need emphasis:-

- Melatonin controls our circadian rhythms. The brain’s biological clock - the suprachiasmatic nuclei - triggers increased melatonin synthesis in the evening in the Pineal, essentially by conversion of the neurotransmitter serotonin in readiness for sleep, and then induces deep phase 1 (repair) sleep. Melatonin’s second function is to ‘mop up’ excess oestrogen (and free radicals) in both sexes, now acknowledged to be a trigger for breast and prostate type cancers. Lethargy, mood swings, mental disorders and immunodeficiency have been ascribed to reduced melatonin levels.
- Serotonin Fluctuating production can disturb many important functions including the immune system; too little leaves a melatonin deficit; an abnormal surplus in the small hours – when melatonin’s level peaks, and serotonin’s should bottom (as the precursor to melatonin) – can instead overwhelm the vital work of the melatonin it has just created.

Concomitantly with the huge increase in Electrosmog, we have seen a big increase in breast and prostate cancers. We disturb the pineal gland at our peril.

The ES/EHS Most victims sleep well if they can avoid ELF/EMR but now, with WIFI (and DECT’s) left on or in use by insomniacs next door, our sleep, especially in flats can be badly affected. Satellite signals are also an increasing problem.

THE PUBLIC

Adults Poor sleep, especially with flat dwellers, seems to be a growing curse today. A flat dweller's EMF/EMR load is pitiful. If poor sleepers (we ignore stress etc here) only understood their pineal gland they would observe the precautionary principle and forget sleeping pills. All doctors must know this.

Children Additives in junk food (hyperactivity) and the culture of constant entertainment predispose many children to late/poor sleep nowadays. Distraught parents deliver small children to school claiming 'he just would not go to sleep until 3am'. There are reports of teachers, so busy trying to control unruly behaviour or deal with fatigue that any normal tuition, including socialization skills is abandoned. However, the **prime cause** of all this today in most cases is Electrosmog.

- It should be impossible to stop a properly fed and controlled 5 year old falling asleep at some point in the evening. Child insomnia is a worrying development for their growth and progress. There will be exceptions but enlightened parents who understand the pineal gland would recognize:-
- It is not that the child would not go to sleep – it could not, due to its delicate pineal gland's bombardment by so much EMR from without and EMF's from within. Bedrooms are often stuffed with their TV, toys and other electrical gadgets. There might be a microwave pulse from the burglar alarm outside, very close to their heads. Neighbours' WIFIs and/or the parents' may have taken their toll.
- That doctors now prescribe anti-depressant pills for 1 in 10 children (even to 5 year olds) in the UK is shocking. In our view this highlights the profound ignorance of Electrosmog's dangers that abounds at all levels. Free these youngsters from most of this blight, wean them off the pills with their adverse side effects, and restore happy, healthy lives to the majority. There is a strong link between ES and *apparent* clinical depression.

Recognition This is why recognition of ES in a general sense is so important. Our children's health, happiness and progress now depend on education in ES of all the public and of parents especially. How many of their children so saturated with EMF's/EMR will develop cancer in their teenage or develop very early dementia? How many will reverse a long standing trend and not live longer than their parents did? Do we have another depletion factor to add to the depletion of the workforce by demographic trends in many developed nations? Governments, regulators and the telecommunications/IT industries if asked these questions will just temporize as would, with few exceptions, the medical profession.

A SHORT SIGHTED STANCE

An Electrosmog cull of longer living, costly pensioners and sick elders would not trouble budget stretched finance ministers, already grappling with shrinking workforces. Sharp falls in birth rates in many countries, including Japan, S. Korea, Spain and Eastern Europe already threaten tax revenue levels sufficient to sustain welfare states. Germany, with the lowest ratio of children per inhabitant in the world, faces a chronic problem with a birth rate of only 1.4 children per female of child bearing age. (The minimum for a generation to renew itself is 2.1),

Governments know they are critically dependant upon timely replenishment of their workforce but, for the most part, are in denial over the potential risk of a savage cull of its Electrosmog drenched seed-corn. The current expediency of *laissez-faire* for short term tax advantage is a high risk strategy for the longer term prosperity of welfare states, as pineal glands, brains generally and bodies are left under constant siege by Electrosmog.

FACT

More children and people under 40 lose their lives to a brain tumour than any other cancer.' (Source Samantha Dickson Brain Tumour Trust 2007)

ELECTROSMOG HARMS AND KILLS US –

RECENT EVIDENCE, REPORTS AND STUDIES

A FALSE – AND FATAL – PREMISE

The ‘Establishment’s’ stance for so long that Electromog is of no danger to health because EMF’s/EMR cannot affect human beings (‘the power is so low’) has long ignored the empirical evidence that it does. The body’s response – and the brain’s – to carefully directed EMF’s and EMR has been exploited in medical treatments for many years with therapeutic success and indeed some failures.

Such treatments are administered with clinical precision with carefully controlled brief exposures using low level EMF signals. EMR is used in Radiotherapy, yet for two decades or more the Establishment has insisted that it is perfectly safe to expose everyone to escalating levels of increasingly intrusive Electromog 24/7, in a random, uncontrolled way.

Those disabled by ES/EHS have not been permitted to disprove the Establishment’s complacent hypothesis. However evidence that anyone can be sensitive to Electromog – vulnerable in fact – is now to hand. Whether formally ES or not at the outset, people are being hurt, maimed (disfigured even) and killed by Electromog.

PROOF

The Reflex Project Coordinated by VERUM, the Foundation for Behaviour and Environment in Germany, this impressive in vitro research project, with 12 research groups from 7 European states ran for 12 months up to 31st May 2005. It found that intermittent exposure to ELF EMF’s at 50Hz:

- Had genotoxic effects on human fibroblasts, melanocytes and some animal cells.
- A direct correspondence between the intensity and duration of ELF EMF’s exposure and the number of DNA breakages or micro nuclei, both markers of genotoxicity.

In cells exposed to RF EMF the research also identified:

- Genotoxic effects including DNA breakages, chromosomal aberrations and the formation of micronuclei in human fibroblasts (the cells that make the connective tissue that forms the supporting framework of organs in the body), HL60 cells and granulosa cells in rats. Again, type of signal and duration, dictated degree of damage.
- The Reflex team also found that in some cell cultures both ELF EMF’s and RF EMF’s affect the expression of genes and proteins involved inter alia with cell division, proliferation and differentiation.

The team wished to carry out whole animal studies in order to reach firm conclusions on human health. (Their laboratory microscopic photos showing cell membrane break up would seem to provide this.)

Other In Vitro Studies Many in number, they all conclude with few exceptions that EMF’s and EMR can cause cells to react, membranes are damaged, nuclei as well. There can be mutations with free radicals and cell death. Inter-cellular communication is compromised, the outer cortex of the brain is damaged and the endocrine system may be degraded. NB The Reflex EMF’s were NOT pulsed.

Case Studies The number of cases of ELF/EMR damage is on the increase. At Annex G a few are detailed. To make the point here on just how dangerous mobile phones can be (we expect to interview him soon) we mention a 39 year old telephone engineer, who after x years of using his mobile, developed an acoustic neuroma on the side of use. He has lost all hearing in that ear, the ear itself and control of his eyelids. He has to tape them shut to sleep. To the regulatory scientists, this is just anecdotal evidence – the 3rd priority for proof. They must have ‘conclusive’ in vitro proof. How can they possibly replicate in a laboratory 10 years, say, of mobile use, sufficient to result in the case above, in a benign tumour or a fatal brain tumour? Annexe E includes 2 cases of medical doctors self diagnosing traumatic reactions to WIFI.

REPORT ON PULSED ELF SIGNALS - MOBILE PHONE MASTS AND WIFI (AND TETRA)

A hypothesis that depicts the dangers of pulsed ELF signals explains why people can react so badly to these devices. The much slower pulse rates (relative to microwave) react with vibrating protein receptors on our cell membranes. The cells interpret this unusual stimulation as foreign invaders and react by closing down the cell membrane. This impedes the flow of nutrients into and waste products out of the cell. It also disrupts inter cellular communication meaning that clusters of cells that form tissue can no longer work so effectively together. Toxic waste leads to cancer forming free radicals. Worse still 'messenger RNA' in the cell passes on the 'learned response to daughter cells'.

All this disruption is thought to trigger, then exacerbate ES. Cell death releases free radicals that can lead to the increase in tumours in frequent users of mobile phones etc. Children are at heightened risk with their developing immune systems.

ABERRANT BEHAVIOUR

ELECTROSMOG AFFECTS THE MIND

The Brain The brain's delicate electromagnetic balance can struggle to function properly, in harmony with the Earth's magnetic field. It is now irradiated by Electromog from afar and, at very close quarters, by mobile phone use. Mood swings and hyperactivity, strange behaviour, quite out of character, rapid, then slow speech with loss of word recall, chronic poor memory, where once it was sharp.....all these and other problems with the brain are increasingly felt or noticed. The ES who have suffered these problems but known how to combat them – by ES counter measures and prudent avoidance – can be 'trained' observers of others' suffering and behaviour.

Behavioural Standards in Decline Research into mind altering powers of pulsed ELF EMF/EMR has already been mentioned and nowadays there is a heavy load of this Electromog and other components e.g. microwave. Mental health must be at stake. It will still be a very small proportion of the population but increasingly nowadays there are cases of unruly behaviour, sometimes bizarre and violent, by seemingly deranged teenagers especially, and adults. There can be several, well understood reasons for this but no-one yet considers mind altering Electromog. The Police always check the mobile phone factor in vehicle accidents today; difficult to quantify but Electromog exposure as a cause of serious behaviour cases should be in their checklist. Most of a 16 year old's life today has been immersed in Electromog and girls of 15 and 16 in the UK today are violent as often as boys are, according to the Police.

Financial Times 22nd March 2008 The FT reported 'a new generation of sickness related benefit claimants suffering from stress and behavioural disorder problems that are most hard to shift...one most striking finding is that numbers have been rising in areas normally associated with high employment.' Citing Crawley in West Sussex as an example, the FT reported an 82% employment rate and good salaries, both well above the national average. According to the Department for Work and Pensions, the proportion of mental health claimants in receipt of incapacity benefit rose 20% in 1999 to 35% recently; and over half of claimants aged 16 to 34 have mental and behavioural problems.

- Modern lifestyles and junk food etc will be in the equation for some, but this age group has spent all or much of their lives in the Electromog era. This has to be a factor in their mental health decline.
- Of special significance is the rise in claimants since 1999. This period saw the introduction of pulsed microwave and pulsed ELF radiation, culminating with WIFI.

Mental health is almost certainly under general erosion from Electromog. Many ES have noticed episodes of out of character (almost out of control) behaviour amongst family, friends and colleagues; sudden mood changes, aggression, unusual temper etc. Is it ES and/or depression that has caused an 80% increase in self harm cases since 2000 among 16 to 29 year old females? Minds are under irradiation, the price is being paid.

THE BRIDGEND SUICIDE CLUSTER 2007/2008

FATE, MYSTERY OR HARBINGER?

Why did the suicide rate in Bridgend S.Wales and its borough of 130,000 people suddenly quadruple in 2007 to 12 deaths, and then accelerate again up to 1st July 2008 with a further 10 suicides – a total of 22 hangings (aged 15 to 28)? The Police and Coroner had yet to close every case but there is no suspicion of foul play or evidence of linkage, in their view.

PRE-DISPOSING FACTORS

Most of the apparent suicide victims had lived in run-down parts of the borough or the town's older housing estates. Whilst Bridgend is now far more prosperous than 15 years ago, some homelessness, a youth unemployment rate above the UK average with poor job prospects, alcohol and drug abuse may all have played their predictable part in grinding these young people, especially the unskilled, down into melancholy. Stress with family or other relationships has also been cited.

However none of these factors is unique to Bridgend and the Samaritans there feel drug abuse is no worse than elsewhere in the country. The town has received considerable funding and youth support activity in recent years to help rejuvenate some areas and assist struggling youngsters. Is there then another, compounding factor perhaps common to each tragic death?

A COMMON CAUSE?

In the search for a common cause behind this spate of suicides, some journalists have mooted an internet suicide cult, but the most obvious factor for urgent analysis is surely Electrosmog? Roger Coghill, the independent researcher whose findings featured in the Sunday Express of 22nd June 2008, established that both 2G and the more powerful 3 G mobile telephone masts had been sited much closer than is usual to all the victims' homes, and reasoned that their radiation could have triggered (clinical) depression.

There are reports from many countries of Electrosmog causing some forms of depression. Mr Coghill felt other Electrosmog at home may have exacerbated the underlying depression. He also reported more recently that in April 2005, Bridgend Council vied to be the first town in the UK to have total area coverage of WIFI. To what extent this 24/7 pulsing radiation has plagued every suicide victim's home is not known but this revelation strengthens the hypothesis that Electrosmog is at least the catalyst behind these tragedies.

A detailed analysis of the home (and workplace?) – of each victim's personal Electrosmog imprint inside and from outside, to include patterns of mobile phone usage, WIFI and nearby power lines, over several years if possible, might well reveal that a heavy EMF/EMR load was in place. Sadly, the nation is bereft of both the will and resources to evaluate this pollution, or the 6 other suicide clusters in the UK.

The path to suicide may have been through melancholy to acute depression. It might simply be that a protracted, sleep-robbing, mind-altering assault of pulsing ELF/EMR in particular and Electrosmog in general, both imposed and self-imposed, climaxed in fatal conjunction, perhaps of harmonic waves...all superimposed over any predisposing unhappiness and lifestyle problems etc.

1st August 2008 Bridgend Council has closed all cases and the general investigation. We assume the Coroners' verdicts will all conclude'whilst the balance of his/her mind was disturbed'. But what was the *cause* of all this, and of the other 6 suicide clusters? Before any other common cause is ruled in, Electrosmog as the prime suspect should first be ruled out, but only after expert, detailed evaluation. This should not be left to 1 or 2 unpaid volunteer researchers struggling with conflicts of interest, and understandable sensitivity.

11th August 2008 A man of 23 committed suicide in the same street of Betws, where 2 previous suicide victims lived.

MEDICINE

‘The art of restoring and preserving health’ (Oxford Dictionary)

RECOGNITION AND CARE

Our doctors do their best to relieve their patients’ suffering, and we respect their learning and skills. We hope for correct diagnosis and then expect as a fundamental right appropriate advice and treatment. But for well over a decade now this right has been denied to most ES sufferers. A doctor may give tacit acceptance but generally when with a patient dare not speak its name: Electrosensitivity.

Russian research concluded in 2003 that ES developed in 3 phases each of 5 years. If diagnosed and ‘treated’ during each phase then respectively, the patient should recover, might just recover, but in Phase 3, the illness left undetected would after the 15 years leave the victim’s ‘biochemical systems irreparably damaged’. It is harmful to desert an ES suspect in need: the damage is cumulative.

‘A PHSYCOSOMATIC ILLNESS’ ES was never and is not ‘all in the mind’. Time and again ES sufferers feeling well enough in an area judged to be safe have felt , after say half an hour, an onset of symptoms due to an EMF or EMR source suddenly being switched on...usually identified by inspection and/or meter measurements. And when 3 medical doctors self-diagnose ES (Annex E & G) and up to 2000 German doctors in effect recognized ES (page 4) then there surely had to be a co-ordinated force behind the steadfast refusal to recognize ES as a modern illness. Even after the world’s international health ‘regulator’ WHO (page 8) formally recognized EHS (ES in its broadest sense) this force held sway.....political control with medical undertones.

THE POLITICAL FACTOR

To recognize ES as a genuine modern illness would open up a ‘Pandora’s Box’ with implications for taxation, resources and other repercussions. The medical profession with its reliance upon so much electricity in its hospitals etc must have winced at the notion of a fringe group of patients needing special arrangements. Perhaps it was deemed prudent to let a small swathe of the public suffer for the good of the public purse and progress.

THE OUTCOME

This political vice and perhaps medical reluctance have effectively obliged individual doctors to ignore the first principle of their Hippocratic Oath; ‘to do no harm’. Great harm has been and is being done: ES left to fester until lives and health are wrecked; the lack of official warnings on Electrosmog dangers not only sentencing many more to ES suffering but, as we can now see, resulting in serious injury and death. It is an irresponsible gamble to deny there is much worse to come.

German doctors are clearly still very concerned. Their Frieburger Appeal proved fruitless but 175 doctors signed a Bramberger Appeal in 2007 asserting the prevalence of microwave radiation in Germany was now so bad it was ‘a medical disaster’. They called for the German Government to initiate a public health investigation.

‘All radiation raises the cancer risk’ Doctor Jill Meara Deputy Director UK HPA Radiation Protection Division (Sunday Sun Newspaper 20 May 2007).

CONSUMPTION OF ELECTRICITY

THE MAGNETOSPHERE

From the core of the Earth emanates a magnetic field; it reaches the surface at a frequency corresponding with the brain's frequency range. We have adapted over the span of human life to subtle changes in this ambient field. The sun's energy distorts the fields into the 'magnetosphere'. This shields life on Earth from a significant amount of the deadly ionizing radiation from outer space. The magnetosphere is stationary, whilst the Earth rotates beneath it, causing a daily rise and fall in the magnetic field of our particular habitat. In turn, the biological rhythms of humans and many other species rise and fall. Disturb the magnetosphere and we may disturb our natural balance.

A NEW THREAT?

In the 1990's, satellite measurements showed that the radiation from the world's 50Hz and 60Hz power lines influenced the magnetosphere more than 100kms above the Earth's surface. That was then; a decade on, with China, India and other countries no longer electrically dormant the impact on the magnetosphere must have increased almost exponentially. In 2007 we found that China alone had set up power generating capacity in just 12 months that equal 50 years of the UK's growth in capacity. To what extent is this, and a predictable surge in power line radiation, a new emerging threat to life on Earth, to be set alongside Global Warming?

A SPUR TO REDUCTIONS IN POWER GENERATION

Some electrical engineers have begun to ponder on this 'new threat' and even question for how long the Earth can continue to 'earth' such a growing charge before its natural electromagnetic balance is affected. The instinct of the ES is that such thoughts are not necessarily fantasy; to reduce electricity consumption for global warming reasons is now under discussion; a possible threat to the magnetosphere emphasises the importance of this.

- The over-use of electricity in domestic, retail and business premises has been profligate for too long. There is absurd over-use of fluorescent lighting in many supermarkets and all night street lighting is now under review.
- For the ES, as well as the planet and life upon it, a retrenchment of attitudes to and use of electricity would be most welcome. The density of low hung banks of fluorescent lights in so many premises are a bar to entry. They have a microwave component.
- No one needs so much artificial light or heating/cooling or so many electrical gadgets for frivolous purposes.

It does seem sensible for the impact of power lines on the magnetosphere to be reassessed, and for the issue, if it is deemed to be significant to receive close examination, and inclusion in the justification, provisional at first, in the case for generation/consumption reductions. Add a huge increase in microwave/ELF radiation (pulsed) to the mix and we feel at least a presentiment.

THE BEES.....AND THE BIRDS

GLOBAL WARNING

In just a few years, honey bee populations have crumbled in many countries. In the UK, Lord Rooter opined recently 'Unless something is done they will be gone in 10 years.' Certain bird species have all but vanished from London and other big cities in the same time frame.

The loss of birds and to our heritage is sad; the loss of bees is bad, for they pollinate some 30% of world food production. Is Electrosmog involved? See Annex I.

SUMMARY

HISTORY AND JUDGMENT

Scope of Paper To condense half a century of growth in Electrosmog with its escalating damage to the electrically sensitive and general public has required simplification. However the main strands of a disturbing account have been brought out. Copious reference material to substantiate all but a few statements and claims made is always available.

Out of Control The telecommunications industry has in effect enjoyed untrammelled design and deployment rights to spread and radiate, even extending this to consumers. Their regulation has failed at international and national level. There has been little political or medical will to intervene. Wireless devices with radiation dangerous to health and life have escaped all challenge; worse still is now imminent. The 2004 WHO declaration recognizing EHS has been coolly ignored by most nations.

The Result Thousands of people have become ES/EHS and are suffering dreadfully from the effects of Electrosmog. Others not knowingly ES at first, have developed serious and fatal diseases. Irrefutable evidence of this, from general malaise and irrational behaviour to brain tumours and deafness causing acoustic neuromas is now in the public domain. The toll of suffering and death seems bound to rise as cancers, for example, needing 10 or more years to grow and show, strike irradiated victims more and more.

Judgment An imbroglio of vested interests, incompetence and intellectual dishonesty, reckless design and ignorance, political and medical laissez-faire has left no judge in the chair as the jury at last returns to deliver its verdict of Guilty! Electrosmog is an assailant and a killer. Who now shall pronounce sentence?

AN IMBROGLIO

PERSPECTIVE

The task of modern government has become increasingly complex with too many calls on its time and so many conflicts of interests. It must tax the nation and we recognize that such taxation is the price we pay to live in a civilized society. However, a government's first duty is to protect its people – to safeguard their welfare. Here there has been a dereliction of duty in most governments as they have coveted the taxation from bounteous technology of the industry rather than the health of their people.

We recognise the importance of industry with its provision of jobs and security, its many problems and its essential contribution to taxation revenues. But here again the reckless pursuit of progress and profit at the expense of human health and life is leaving an ugly and spreading stain.

Politicians have presided over this and only selfless, perceptive politicians with moral courage can correct it. Mere warnings (e.g. 'Smoking Kills') would not suffice; action is required.....urgently. Some seasoned observers feel we could be on the cusp of an epidemic of suffering and worse. Intervention at international level is required.

APPEAL FOR EUROPEAN PARLIAMENT INTERVENTION

A PLEA FOR ALL

Our suffering brings knowledge.....and foreboding. As we, the ES plead our own cause we plead for all human beings (and other species) under this pall; most live in ignorance of Electrosmog's dangers and some are paying a heavy price.

- Especially, we plead for the very young most of whom are irradiated from pre-ovulation by potentially damaging pulsed microwaves/ELF radiation. This cannot be safe - there are reports today of:-

- Autism 30 years ago, just 1 in 1000 children were autistic; that now 1 in 100 are, can be explained by other factors to an extent, but Electrosmog is surely a major reason.
- Cancer Babies being born today with cancer due, as established recently, to their immune system in the womb failing to kill (as before) cancer cells that cross the placenta. (Electrosmog disrupts immune systems – see below).
- Brain Tumours The Samantha Dickson Brain Tumour Trust reports ‘FACT: More children and people under 40 lose their lives to brain tumours than any other cancers.
- Strokes An alarming rate of 5 strokes a day in children in the UK. (The Freiburger Appeal doctors warned of an increase in early onset strokes.....but in middle aged people.....in 2002)
- Communications Skills A large increase in 5 year olds starting infant schools with hopelessly inadequate language and communication skills. This may be wholly ascribed to distracted and ‘TV’ parenting, starving them of inter-active stimulation. However the 24/7 Electrosmog assault upon children’s brains (speech centre in this context) might well be a contributing, even dominant factor in some cases, as with a widespread increase in confrontational attitudes by older pupils towards teachers.
- Childhood Diabetes and Cot Deaths No link of course but is there to Electrosmog?
 - Type 1 Diabetes is an auto-immune disease in children that has doubled in 30 years. Its cause remains a mystery, unlike Type 2 adult diabetes. Certain genes have been mooted but they were always there? The immune system is often the first to be disrupted by Electrosmog.
 - Cot deaths have reduced markedly due to certain measures since their peak, but still persist.

Would a detailed Electrosmog survey of every bedroom and home in question reveal a pattern of high exposure? We must not pin the Electrosmog label on every health mystery encountered. However, in the maelstrom of EMR today, we feel it is a much greater folly NOT to consider Electrosmog in all relevant research. It might well save a great deal of time, taxpayers’ money, poor health and lives.

- Electromagnetic radiation is said to be 3000 times higher today than it was 10 years ago, and many million times higher than 100 years ago. Our delicate biochemical and electromagnetic balance has received no compensatory upgrading, and ‘adaptation’ at such a speed is impossible. We are as frail as we always were but chemical pollution has made many of us more vulnerable still.

Human Rights and Fundamental Rights are at stake for everyone and, for those who are sick, dying or dead due to Electrosmog, have already been infringed. The young, the sick, pregnant women and the elderly in particular need more protection from Electrosmog.

A PLEA FOR ES/EHS VICTIMS

HISTORY

The decades of decline by the ES/EHS have been set out. Their lot today is appalling; their symptoms at Annex F, their plight as ‘Displaced Persons’ in extreme cases on page 5 and Annex E. The majority of ES and all EHS now feel like aliens in their own environment and society, driven even deeper into hermit-like isolation at home. ‘Home’ however is now often bombarded by radiation by DECT phones and WIFI radiation from several neighbours. Expensive protection measures (many thousands of pounds has been the cost) are now penetrated by ELF magnetic pulsed radiation. Their dilemma is cruel.

PLEA TO THE EUROPEAN PARLIAMENT

European Level We appeal to the EU Parliament to recognise our distress and the reasons for this, note our proposals for reform that follow, and to ensure compliance by all EU governments (and invite non-EU states in Europe to conform) regulators and manufacturers. The core of this reform is to respect the World Health Organisations’s (WHO) formal recognition in October 2004 of electrical hypersensitivity to electromagnetic fields. WHO has a purpose and authority; for most medical services worldwide to have ignored WHO’s recognition has greatly compounded the harm from Electrosmog since then.

International Level We plead that the Parliament uses its influence to secure reform or replacement of the ICNIRP, its neglect is reprehensible. And to require all relevant telecommunications and IT manufacturers to

recognise their design failures, the harm done and future dangers, and to set in train an urgent programme of modification, and safely designed product replacement.

European Union Charter of Fundamental Rights The bedrock of our case is the betrayal of Fundamental Rights to the enemy of radiation for profit. Noting the precedent of the Canadian Human Rights Commission set on 15 June 2007 – its clarification of EHS as ‘an environmental sensitivity therefore a disability’ (and Sweden’s long held recognition of this) pages 2 & 5, we request Parliament to direct consideration of our case under the Charter, note WHO’s declaration and declare that the Fundamental Rights of the ES/EHS have been infringed as set out below. A declaration similar to Canada’s is then sought.

Medical Services Following this declaration and recognition, we request that the medical services of all EU states are required: to recognise ES/EHS as a serious functional impairment, with its wider implications for all of the population; that medical associations must now include training in ES in medical schools etc for all trainee doctors and other medical staff with the aim of prompt diagnosis, caution, advice and in due course treatment; and that governments are directed to provide adequate funding. This will have to cover EMF/EMR protected areas from doctors’ surgeries to hospitals and treatment centres to residential and nursing homes. A special tax to cover much of these costs on the industries responsible for them in the wireless sector, would not be inequitable.

Environmental Health Agencies Health Ministers, and Environmental Health Officers/ staff must be given detailed training in Electrosmog dangers, safety criteria and, especially, the wireless EMR threat. Adequate funding, resourcing and legislation must follow, down to Town Hall level.

EU CHARTER OF FUNDAMENTAL RIGHTS - SYNOPSIS OF ARTICLES INFRINGED

THE GENERAL PUBLIC, INCLUDING ES/EHS

ARTICLE 24 THE RIGHTS OF CHILDREN

- Children shall have the right to such protection and care as is necessary for their well being.
- In all actions relating to children, whether taken by public authorities or private institutions, the child’s best interests must be a primary consideration.

From ovary, through birth, infancy and school days, a child’s developing tissue, its delicate brain’s, biochemical and electromagnetic balances are threatened by pulsing ELF and microwave radiation from devices untested for safety. Childhood leukaemia due to power line EMF is already formally accepted. A child’s rights under the Article have been violated.....children remain at high risk, many warnings have been ignored, and some children are now ES.

ARTICLE 37 ENVIRONMENTAL PROTECTION

Owing to policy and regulatory failure at all levels Electromagnetic pollution – Electrosmog is not controlled. This has led to the heavy saturation of the internal/external environment with layer upon layer of potentially harmful EMF and EMR. Imminent roll out of WIMAX, potentially the most dangerous, wireless device yet, is set to compound the threat. Everyone (and many other species) is at risk.....the ES/EHS critically so.

ARTICLE 32 THE PROTECTION OF YOUNG PEOPLE AT WORK

Ignorance of Electrosmog’s dangers with regional electricity boards (main, overhead power lines radiate offices and business parks) and by employees – heavy EMF/EMR (WIFI) etc place the mental and physical health of young people at risk. Some are now showing behavioural and ES problems. Their rights under this Article have been breached. Relative to older generations young people have grown up in more Electrosmog and are more predisposed to these afflictions.

ARTICLE 38 CONSUMER PROTECTION

Manufacturers have refused to heed authoritative warnings that all microwave wireless devices should bear Health Effect warnings on them and their packaging. This perpetuates the long standing ignorance, perhaps complacency too, of all users. At least some of the serious and fatal disease that has occurred should have been avoided by timely action. Generally the dangers of Electrosmog, and the precautionary principle to observe has not been promulgated by Governments or regulatory bodies. This is a major infringement of consumers' rights under this Article, as is the failure of authority to bring telecommunications and IT manufacturers to account over hazardous design. Consumers have not been protected adequately for a long time. In particular ES has grown more and the ES/EHS have suffered much more from others' radiation.

SPECIFIC TO ES AND EHS VICTIMS

ARTICLE 6 Everyone shall have the right to life, liberty and security.

THE RIGHT TO LIFE Denied to the dead and dying from Electrosmog.

THE RIGHT TO LIBERTY Denied a normal, happy life due to their inability to socialize and to shop. Denied the gifts of nature...the refreshing walk in the park or countryside. Denied by enforced isolation, a form of 'exile' in their own land. Denied even the use of own garden and all of home as they cower behind internal screens for protection. All this and more, due to Electrosmog. Please see Afternote page 21.

THE RIGHT TO SECURITY Is prejudiced in extreme cases when criss-crossing pulsed radiation impairs cognitive function.

ARTICLE 35 EVERYONE HAS THE RIGHT TO PREVENTATIVE HEALTHCARE. The medical professions' refusal to recognise ES, to diagnose, counsel and assist ES patients denies this Right. It exacerbates their physical suffering and bewilderment and threatens their longer term welfare.

ARTICLE 26 INTEGRATION OF PERSONS WITH DISABILITY

Failure to recognise the disability of ES victims at work generally leads to their exclusion from most 'walks of life'. This leads to inter alia:-

ARTICLE 21 NON DISCRIMINATION ON GROUNDS OF DISABILITY. With no provision for ES employees in the workplace and ignorance of ES sickness with employees, their symptoms lead to misjudgment by victims, and of them. Early retirement, forced job changes can ensue. With no Electrosmog free areas anywhere, there is de facto discrimination of the ES/EHS. When a child's booked place at a new school is cancelled by the school due to the child's illness, its Right is denied. (Please see after note next page).

ARTICLE 1 HUMAN DIGNITY IS INVIOABLE. IT MUST BE PROTECTED. ES/EHS sickness reduces a victim's presence – standing – with others. Character suppressed, mind clouded, verbal expression slow and halting, anxiety over mobiles/chemicals on people and sometimes bizarre protective clothing etc can all make an ES sufferer an object of ridicule. Non-recognition and no publicity of their condition can make others scornful.

ARTICLE 34 SOCIAL SECURITY THE UNION RECOGNISES AND RESPECTS THE RIGHTS TO SOCIAL AND HOUSING ASSISTANCE SO AS TO ENSURE A DECENT EXISTENCE.

A 'decent' and tolerable existence is denied to the ES/EHS: social assistance is lacking due to the non recognition of this illness. It should include:-

- Preventing neighbours from irradiating ES victims after they have been asked to moderate/reposition the source.
- Financial assistance with protecting their homes. From meters, to screening materials/paints the cost of protection from incoming radiation can be very high. Over £20,000 has been spent but most victims must make do with far less and so suffer more.

ARTICLE 4 NO-ONE SHALL BE SUBJECTED TO TORTURE OR INHUMAN OR DEGRADING TREATMENT OR PUNISHMENT. The ES/EHS victims are irradiated by so much pulsed ELF/Microwave radiation today that their distressing/debilitating symptoms have little chance of subsiding. They know they can only get worse. Those in the chain of responsibility for their condition are not unaware of this damage to mental/physical health. Many, e.g. informed neighbours, knowingly deprive victims of their sleep, so vital for health and well being. In aggregate this is torture in breach of the Article. It is a form of slow insidious electrocution by remote application: pain, mental and physical suffering and eventually for some, through serious disease, death.

ARTICLE 3 EVERYONE HAS THE RIGHT TO RESPECT FOR HIS (HER) PHYSICAL AND MENTAL INTEGRITY. This Article sums up the plight of all ES/EHS victims (and indeed all the population). There has been failure at all levels in the chain of responsibility for public health, and by the telecommunications /IT industries for safe design and deployment, to recognise and respect ES/EHS victims as a vulnerable group to their stance and products, in spite of constant reports and complaints of physical and mental suffering. Callous disregard for their plight amounts to disrespect for their physical and mental integrity.....where integrity is defined as ‘unimpaired state’.

APPEAL TO THE COURT

That the infringement of Fundamental Rights as set out above be recognised, in their wider application to the general public and with specific reference to those who suffer from electrical sensitivity to the Electromog polluted internal/external environment which leads to their functional impairment. And that ‘Electrical Sensitivity’ and ‘Electrical Hypersensitivity’ be recognised as an environmental sensitivity and therefore a disability.

After note – Flying To be free at high altitude of mobile base station and cellular phone radiation on the aircraft is, for the less injured ES who can still fly infrequently to visit family etc, a welcome relief. News that mobile calls are to be permitted during flight is a serious blow, and a further infringement of their rights under ARTICLE 6 and ARTICLE 21. We plead that the Court shall pronounce on this.

REFORM

A TIPPING POINT?

Whether Electromog's uncontrolled expansion has already reached the cusp of an epidemic of serious disease as some pre-eminent observers fear, only time will tell. Clearly though, with so much suffering by the swelling ranks of the ES/EHS and cases of deafening and death from mobile phones now evident, the case for a root and branch retrenchment is very strong. This can only be enforced by political action, in a concerted drive to reform attitudes, regulation and the telecommunications/IT industries. The welfare of all the population, especially children and a long suffering group of neglected ES/EHS victims is at stake. We now set out our proposals for reform.

RECOGNITION AND PUBLICITY

The single most important measure is to follow the lead of Sweden years ago, Canada and Ireland in 2007 and formally recognise ES/EHS across the Union:

- In its broadest sense that Electromog can harm the health of all people and the need therefore to follow the Precautionary Principle. Education and publicity of this should follow with TV advertising etc. It should be explained how Electromog does disturb sleep and can predispose some people to serious disease.
- As a distressing or disabling condition which must be understood, respected and accommodated by all including employers. The ES/EHS must be recognised and helped.

THE MEDICAL PROFESSION

Recognition by national medical associations should follow with training in Electrosensitivity, its symptoms, diagnosis and treatment incorporated in all trainee doctors and medical staff syllabi. WHO's recognition of 2004 must be acknowledged and respected with doctors readily assisting ES/EHS patients with their illness.

REGULATORS OF NON-IONISING RADIATION

Scope of Supervision 'Radiation' per se does not necessarily include ELF (EMFs) from transmission/distribution networks for the power supply, to the ELF signals from devices at work or home. Regulation of all components of Electrosmog should be vested in one regulator only at national/international level.

Quality of Supervision We have brought out the complete failure of regulators at all levels for over 16 years. Radical reform is now urgently required. Their motivation needs challenge, their modus operandi needs drastic overhaul and there needs to be clear recognition that their principle duty is to 'protect' life and the welfare of the people, not profit and progress. Such reform must start at the top, with the ICNIRP.

The Task of International Regulation It is not known if the remit of the ICNIRP has evolved since its inception or to what extent the Commission is active and successful in other areas. It is said to be aloof and incommunicative. Russia and Australia refused to join it due to its absurdly high, thermal microwave limit, setting their own a long way below. ICNIRP should be respected for its all encompassing knowledge in its field and act both as mentor and supervisor across the globe. All nations should have confidence in joining ICNIRP for the common good of the planet and all species on it. Its tasks today might broadly be outlined, inter alia as:

- Monitoring the integrity of the Earth's electromagnetic balance and of the magnetosphere
- Advice to developing nations on Electrosmog's dangers the aim being international safety criteria for national transmission and distribution networks, their proximity to habitation etc and safety criteria for cellular and wireless technology.
- Advice to developed nations on the same basis with recommendations for the retrospective actions needed to conform.
- Detailed scrutiny of all frequencies, and combinations of signals from low ELF to high microwave, to establish where current use is potentially and actually detrimental.
- Approval before manufacture of all new design
- To ensure international compatibility and safety of frequencies (to have 4 different standards in use today for mobiles shows the need for coordination). See National Frequency Control below.
- To accept – or reject the design on the grounds of safety. (TETRA WIFI etc would not have passed this check).
- To issue an international stamp of approval before manufacturer.
- To require health warnings to be on devices and their packaging as deemed necessary.
- Review the safety of all in service wireless devices and
 - Order a halt to any further deployment and manufacture of suspect devices (WIMAX)
 - Recommend disablement of untested, unlicensed technology (WIMAX is a prime suspect)
 - Specify which mobiles in use are considered to have Specific Absorption Rates (SAR) above a safe level
- Reassess minimum safety distances for all types of transmitter from residential and work areas
- Stipulate safer power output level maxima relative to distance. Examine safety of multi provider radiation from the same, and with other masts nearby, in the context of aggregate loads upon residents and the harmonic wave danger.
- Specify the maximum SAR for cellular phones and require manufacturers to adopt the ALARA principle – 'As low as Reasonably Achievable' within this limit.

The source and scope of the ICNIRP's funding is not known nor is that of the International Commission on Electromagnetic Safety (ICES). The latter's title and its proactive work (page 8) both suggest a Commission more readily disposed to the new role of stalwart, overarching regulation of Electrosmog with all its components.

If it is agreed that ICNIRP's role should be reformed as proposed and this Commission lacks confidence in its ability to discharge its new role, then it is proposed that, without delay, ICES adopts the role instead. There is obvious duplication now which is wasteful. The haphazard sprawl of Electromog is well out of hand. Decisive, firm and respected international regulation is now essential; as people enter others' countries to visit or live they should be confident that a watchful international regulator is seeking to protect their Human and Fundamental Rights from the dangers of Electromog – a suitably reinforced and funded ICES should transform the discharge of this global responsibility, working from Venice.

National Radiation Protection Agencies These should cooperate closely with the ICES, and mirror the latter's work at national level. The premise that wireless and other products are safe until proved harmful must be eradicated; there can be no acceptable attrition rate of human health and life. That is what we have now; people are being hurt, distressed and killed under the watch of regulators. Protection of people must come first without fear or favour.

- A change in title to 'National Electromagnetic Safety Commission' would define their role more closely, and clearly for the public.
- Corporate funding and the de facto control of the Agencies by the industry must cease. Scientists must be free to judge safety issues without external persuasion
- The long standing ritual of studies to study studies, even quite definitive ones, must end
- Their remit should embrace the ELF as well as the RF band and control of all transmitter deployment.
- No product or service should be approved and licenced until the 'stamp of approval' for it has been issued by ICES (ICNIRP)

Governments The Agencies should be adequately staffed by personnel skilled in this field and funded. Given autonomy the Agencies must be left to perform their vital role without pressure.

The Industry There are disturbing reports of the industry permeating virtually every safety standards committee with embedded spokesman for the industries' interests, influencing the outcome of all major meetings on safety, and, it is alleged effectively controlling much of the media. Cell phone staff and consultants are even on the staff it is said, of WHO and the Bio electromagnetic Society - an independent body. By these and other measures the industry has ensured its own self regulation without any objection. The need for advice and technical specifications is of course relevant but this should not become the door to control.

National Frequency Control Agencies There has to be unease with the auctioning off of any frequency, especially ELF, or just direct allocation, that is to be used for pulsed signals without any thought to its safety in use. Frequency allocation now needs to come under the ambit of national and international regulation, the watchword being not just 'Is it free?' but 'Will it be safe?'. Safety clearance must precede allocation. To this end there may be economies of scale by merging some Frequency Control Agencies' resources under the Radiation Protection / 'Electromagnetic Safety' bodies. Properly trained staff would never have permitted the use of TETRA, WIFI and WIMAX frequencies in the first place. Allocators and Regulators must keep in mind the highly disruptive potential of digital pulsed signals.

REGULATION OF CHEMICALS

We singled out the toxic, synthetic chemicals in most fragrances today – in cosmetics, cleansers/sprays, air fresheners and some food flavourings. They are detrimental to health, can cause serious disease and help to pitch some people into chemical sensitivities, even MCS. This can trigger ES/EHS.

- Women are at particular risk..... page 10. To make the point again, doctors are concerned about a big increase in female thyroid cancer and dysfunction, but 'don't know what causes most of these cancers' (Prof of Medicine 3 Apr 08). Almost certainly the cause of these thyroid gland problems is the regular dab of carcinogenic, hormone disrupting perfumes either side of the gland. Electromog can affect thyroids too but this does not explain the female incidence rate. The skilful marketing and toxic product ranges of the relevant industries now require robust challenge. They place an unnecessary burden upon us all and are a plague upon asthmatic children and the ES/EHS.

MODIFICATION AND MORATORIUM

GENERAL PRINCIPLE

In most other industries, vehicle, aircraft, food, 'white goods', toys etc, if a product or service is found or suspected to be unsafe it is promptly withdrawn or stopped. Modification, replacement or cancellation will follow. Human health and safety are paramount.

THE TELECOMMUNICATIONS / IT INDUSTRIES

A Glaring Exception For many years in spite of mounting concern over product safety in several areas, these industries have insisted on denying danger, with the cooperation of their regulators. The 'Right to Radiate' has been abused at central and private household level.

'Passive victims' of irradiation abound, not just with the ES/EHS. Not until 'Passive Smokers' death rates were established (1000 a month in the UK) and a whiff of 'corporate manslaughter' was in the air, did health warnings on packets give way to legislation to protect the public. Must those suffering so much, whether they know the cause or not, wait for many years too until a serious toll of ill health and death from EMR is evident? It is high time profit and tax revenues gave way to the sanctity of life, and the suffering of the ES/EHS. Like other forms of the 'Right to Pollute' challenged then legislated against, the Right to Radiate awaits legal intervention. 'All radiation raises the cancer risk.' Flat dwellers especially need intervention.

The following measures are as much in users' interests as they are in their neighbours :

- After publicity on Electromog generally, impose a ban on all radiation from WIFI in residential areas from 2300-0600 local time.
- Prepare legislation, inter alia, on the use of Radiation Abatement Orders, to be served upon neighbours who defy requests from sufferers. (WIFI radiation is easily measured by meters).
- Advise all DECT phone users to honour this ban by switching off their DECT from 2300-0600 and using a bedside corded phone/extension terminal instead.

Modification Proposals Concurrent with Electromog warnings to the public, to condition their response and cooperation, the following are proposed.....for recall, modification or disablement.

- DECT Phones Far too powerful, their range should be reduced to 20 metres (still imperils flat dwellers) and the handset's power by 30%. Replace by 1G style analogue phones if possible and advise users anyway to own / use a corded phone instead of DECT.
- WIFI If practicable, oblige manufacturers to reduce its range to 20 metres but in any case issue strong advice on WIFI's dangers and recommend all users switch to 3 pin plugs now on the market that transmit all data through domestic / office power circuits. Extension leads into gardens would extend laptop portability outside too. Homeplug AV routers would eradicate local WIFI radiation completely and justify:-

- A ban in 6 months time on all WIFI usage in flats, terraced and closely detached houses. (Less than 30 metres separation).

- In any case curtail and disable area coverage in public areas, to create signed WIFI free areas, including the City of London.

Generally urge all users to revert to hard wired computers, where laptop portability is really not essential.

- WIMAX Halt and disable this service now. Ban sale of WIMAX enabled laptops. Examine other means of carrying information (fibreoptics?). Consider infrared for internal use generally.
- TETRA Peculiar to the UK this system remains of deep concern to ES/EHS. Its function is clearly vital but it should not in its use traumatize so many people. We call for an independent review of user experience to date concurrent with a contingency plan for a more sensibly designed replacement service.

The review should also canvas residents in several areas to establish levels of reaction and concern. If such a review shows that TETRA really is not safe for anyone it would be a folly- seeking to justify an error – to insist on its retention because of the £2.9 bn investment at stake.

- Modify or Replace Deadline Where it is technically impossible to modify to a safer standard, the manufacturers must be given a deadline – 2 years is too long for everyone – to supply a **safe** replacement approved by regulators (ICES and national). Tenders from elsewhere should be sought.
 - WIFI On failure to meet the deadline, then the cable information provider would be instructed to terminate this service.
 - DECT The ‘orchid’ type cordless phone base station transmits **only** during calls and the device has a variable power output that would be preset before supply – still not as safe as 1G analogue?
- Mobile Phones Stark publicity on their dangers to precede action to:-
 - Stamp health warnings on all future phones and their packaging to include ‘minimise’ advice.
 - Clear indication of SAR value and international safety limit; link to ALARA target for manufacturers.
 - Improve loudspeaker design to permit better safety clearance from ear. This could be a critical factor in acoustic neuroma risk.
 - Outright ban for children up to 16? This ban by Russia is laudable but a debate is required. It is their health versus their security when out. But mobiles can now be a child’s favourite toy and can be greatly overused.....they are very vulnerable.
- Mobile Phone Base Stations Several studies have proved the dangers of living close to base stations (1000 metres can be ‘close’) and revealed deep public concern. Accordingly:-
 - Governments must relax any ban in place preventing local safety concerns blocking planning permission for new masts.
 - Governments must insist on a comprehensive review and declaration by all providers of the overt/covert transmitters for ALL devices – not just mobiles. The public has the right to know and this information should be readily available and kept up to date.
 - The ES need to know why power suddenly increased in early 2008 and where WIFI, and even WIMAX transmitters are a part of this, with 3G signals or separately.

Retrospective Action The dilemma for governments is whilst they now know base station radiation can kill; it is difficult to find a solution. It is easy to attribute cancer clusters near masts to other causes, but not to take action now is unconscionable. Protection is possible against some of the radiation. Grants for cavity wall insulation save energy; grants for EMR protection would save life. Let the cellular phone industry contribute.

Satellite Radiation It is right that the public can object to ‘horizontal’ EMR; it is also their right to know precisely what radiation they are under from above. As with mobile base stations, we call for a ‘census’ of all radiation from space to be effected and promulgated. The ES/EHS deplore recent action to use satellite cellular radiation – it is ‘the last straw’ for many of us. It should be identified, challenged, then stopped. Must every square metre of our land be saturated with EMR?

Supervision and Control of EMR It should have been one of the principle tasks of regulation to monitor and control the deployment and method of all EMR transmitters. Instead the industry has been left to act where and how it has wanted to. It is the revamped regulators who should now coordinate the reviews called for above, and control this critical issue from now on.

Pulsed Digital TV The ES/EHS can react badly to any pulsed, digital device. To add digital TV to the EMR load upon everyone requires pause for thought. We strongly recommend that some years of experience of the first roll out in Cumbria should precede any further roll out across the country.

Smart Meters The planned roll out of these 24/7 microwave mini base stations is *another* threat to households and should be stopped. Safer transmission means should be sought by utility companies for their meter readings.

Mobile Phones in Aircraft Our soundings suggest that the imminent approval of mobile phone use in aircraft has disappointed many people, not just the ES. Potential irritation aside, babies, children and the elderly should not be exposed to EMR from several mobile phones close by, potentially for extended periods.

For the ES who can still fly, what has been temporary relief from microwave EMR will soon become an effective bar to flying. We seek a total ban on mobile phone calls and texting on all short haul flights. As to long haul, only special EMR insulated booths should be permitted. Like tobacco smoking, banned for good reasons on aircraft many years ago, mobile phone calls in flight will be disagreeable, but of relevance to this paper they too will, with texting, be a threat to health. We hope that Governments will now intervene.

GENERAL MORATORIUM

Let there be a protracted pause now in the relentless invention and deployment of all devices and services in the context of this paper. The sum total to date has outreached commonsense, even need, and certainly any due regard for health. It is time to reflect and reassess, for a collective effort to restore order, and a sense of responsibility. We know cars can kill and maim and have many rules and procedures to reduce the toll; we know mobile phones can kill and maim but have no real rules at all.

Cars are necessary; is laptop convenience (WIFI) or WIMAX Internet in a hamlet so vital? Electrosmog is out of control everywhere and its 'Super Highway' especially needs signs, traffic lights and police.

SUMMARY OF REFORM

The measures proposed are for the welfare of the general public; if the majority is implemented, the ES/EHS should all find significant improvement in their blighted lives. This is not a good moment to press for reform measures that could threaten profit and tax revenues. However ignorance of Electrosmog's dangers is widespread, even amongst those close to the subject. Recognition of these dangers – especially from wireless technology – and publicity via State TV and radio broadcasts need not cost much. To instill the Precautionary Principle into everyone would be a vital precursor to firm, reform action, and greatly assist sufferers from WIFI and DECT radiation to reason with neighbours. Awful suffering could be alleviated at a stroke.

The WIMAX threat in the UK is receding in 2009 with BT's plan for a major distribution network for Broadband via fibre optics.

UPDATE APRIL 2009

MOBILE PHONES / BASE STATIONS

Brain Tumours After 10 years of use there is now a 500% increase in brain tumours among young people.

Alzheimer's Disease Alzheimer's and cancer experts in Tuscan and Pittsburg USA feel that mobile phone EMR is harmful to the immune system, bone marrow and brain cells, and could be leading to early onset of Alzheimer's in vulnerable adults.

Base Stations A 500% increase in cancers is evident among people living within 400 metres of mobile base stations. There are recent anecdotal reports of significant signal strength reductions in many areas.

WIFI

General Alarm Reports continue to escalate worldwide of adverse reactions to WIFI EMR and its consequent withdrawal from schools, universities, libraries and homes.

Glastonbury, Dorset UK A high profile case of over 400 residents severely afflicted by a 24/7 WIFI area service featured in local/national media in December 2008. Sufferers are campaigning for its removal.

ICNIRP At the Radiation Research Trust conference 8th-9th September 2008, serious disquiet was evident over ICNIRP's lax, thermal (1 degree heating) guideline and the Commission's apparent reluctance to markedly reduce it to very much lower, athermal limits that respected current knowledge of biological hazard from EMR. There was a call for the immediate resignation of all ICNIRP's members. France, Greece, Poland and Belgium and 5 other Member States have already adopted tighter protection levels.

EUROPEAN PARLIAMENT The Parliament has taken three major initiatives in the last 6 months, which we warmly welcome:-

Safety Limits 4 September 2008 Parliament called on the Council to amend its existing order 1999/519/EC, to set stricter exposure limits for 'electromagnetic waves between 0.1 MHz and 300 GHz'.

Motion for EP Resolution 19th December 2008 The Committee of the Environment, Public Health and Food Safety produced a draft report 2008/2211 (INI) – a motion for EP resolution on health concerns associated with electromagnetic fields. The rapporteur, Frederique Ries achieved a fine analysis of the main problems and obstacles to their resolution. She argued (as we do more broadly) for political intervention to reduce, then monitor ongoing exposure limits.

Workshop 11-12 February 2009 A Workshop with over 180 delegates representing the 'main stakeholders' in this debate met under the EU Commission. Its principals faced a difficult task considering the subject's complexity and conflicting views within such a large gathering. Three constructive conclusions were:-

- 'Communication to the public in general about EMF and consumer information on products emitting EMF in particular, is very important.' (At last we have the dawn of universal recognition and hopefully warning).
- Self-declared ES/EHS people 'need help' irrespective of whether or not 'their symptoms can be attributed to exposure to EMF's'. (We regret that less qualified recognition of electrical sensitivity was not offered, and an earlier assertion of 'a consistent lack' of support from research for such a link.....to EMF exposure'. Evidence should not be limited to just scientific research – good or bad – like this. Much research to date has been poorly constructed and skewed to debunk ES theory).
-'research whenever possible (should be) fully funded by public authorities to avoid the deficit of trust brought by industry funding'. (This is a vital point).

There are two disturbing conclusions :-

- 'In spite of the mass of scientific evidence already available, more scientific research is still needed to address the remaining data gaps, in particular cohort studies.'
 - We cannot reconcile this with an interim conclusion in the Report (page 3): 'While prospective cohort studies would be desirable to address certain questions, they are expensive and take a very long time (decades) to obtain results.'
 - In any case the call for yet more research seems bound to delay real progress for a long time. Time is now of the essence: many people are at risk, especially children.
- 'It is important not to forget to take the risk/benefit equation into account in the application of the Precautionary Principle'
 - This seems to endorse the current presumption that health and life itself are not necessarily sacrosanct, when the 'benefits' from dangerous technology are at stake. We are confident however that the Director for Public Health and Risk Assessment at DG SANCO would not select such a principle as a basis for reform.

The MMF speaker Mr Milligan 'insisted on the lack of evidence of health effects from mobile telecommunications equipment and networks.' (As ever: *suppresio veri/suggestio falsi*) A pity that just one traumatized and disfigured victim of an acoustic neuroma caused by mobile phone usage was not present to display his loss of an ear and explain the loss of hearing and trauma etc. It would have nailed this old lie as would German and Irish doctors had they been invited to testify.

We reasoned at the outset of this paper that research had been overtaken by the evidence of Electrosmog's dangers, manifested by a huge increase in electrical sensitivity, malaise, disease and death. More research at

this stage is a recipe for yet more procrastination. In any case as page 34 of the report concludes ‘In the case of EMF, the inherent methodological limitations of certain types of epidemiological studies make it very difficult to draw clear conclusions.’

It is surely time for the onus of proof to shift from victim to culprit, for the scientists to step aside and for the mobile/telecommunications industry to be directed by suitable legislation to put its house in order. Political will could achieve this and the trigger for legislation would be the restoration of everyone’s Fundamental (Human) Rights as pleaded for in this paper. The industry (and regulators etc) would then be obliged to adopt the reform measures proposed in this paper, after any refinement deemed necessary.

Nuclear radiation can harm and kill so we have stringent safeguards in place against accidental exposure. We now know that electromagnetic radiation can harm and kill yet permit constant deliberate exposure with no effective safeguards in place at all. **Elimination** of unsafe frequencies is vital, not just reductions in their signal strength.

Thanks to Frederique Rie’s diligence we also now know of the implication that insurance companies generally are refusing to include EMF’s under liability insurance. Obviously they too feel that the evidence of harm now available supplants any need for more confirmatory research. We should heed this landmark.

These reservations aside, we remain deeply grateful to all concerned with these initiatives on behalf of us all. We hope that concurrent challenge/reform of the Electrosmog’s partner in crime – **chemicals** – may also commence. (Pages 9 and 10 of this paper)

CONCLUSION – AUGUST 2008

Embattled by Electrosmog for so long, the ES know that self help is better than self pity, but now so many of us feel helpless – hence this international distress call: MAY DAY! As we hope for rescue – very soon – our concern extends to all the populace, especially children and even the planet itself.

Electricity has been, and is a wonderful boon to civilization but it is a two faced phenomenon; it is not only the ES who have now seen its other face and it is very ugly indeed. Everyone, particularly those with the duty of care must know and respect the biological truth ‘we are all electromagnetic instruments of exquisite sensitivity’. If people could only be persuaded and permitted to distance themselves from the excessive electricity – and chemicals in their daily life, then much better health and happiness should ensue.

Germany set a fine example in 2007 when it warned its people on the dangers of WIFI, DECT phone and Electrosmog; similar warnings from all other nations, bar a few are long overdue. However they will not be enough; what is vital now is firm **action** starting with reform of the International Commission for Non Ionising Radiation **Protection**. In the context of this paper their ignorance and complacent laxity have long made a mockery of their title, especially with their inexplicably thoughtless safety limit (of not heating human tissue by more than 1 degree).

Repeatedly over the years in the face of mounting concern and, more recently, hard evidence of harm from non-ionising radiation, the industry and their national regulators, even Government Health agencies, have invoked this international aegis to deflect all challenge with the mantra: ‘it is well within established safety limits.’

The Electrosmog Juggernaut has blundered on death, disease, maiming and much suffering in its wake, all duly **sanctioned** by international regulation. Many feel much worse lies ahead and, unlike the ‘slow burn’ attrition by the tobacco and asbestos disasters, whose toxins destroyed no child, this debacle could erupt much more quickly and widely.

It is time to Recognise, Reprove and Reform and now in April 2009, the dawn of this vital seachange seems to have broken.

Roderick Canning, Bournemouth 5th May 2009

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ELECTRICAL SENSITIVITY**By****(POWERWATCH UK ANALYSIS 1995)****SIGNS AND SYMPTOMS**

A tingling, unnatural warmth or prickling sensation in the face or other part of the body.

Dryness of the upper respiratory tract	Burning Pain
Eye Problems (sore eyes & visual disturbances)	Electric Shocks
Problems with concentration, dizziness, loss of memory	Perspiration
Swelling of nose, throat, ear and sinuses, swollen glands	Anxiety/Depression
Headaches	Menstruation problems
Nausea and Digestive problems	Unconsciousness
Teeth and jaw pains, aches in muscles and joints	Hearing Difficulties
Cardiac palpitations	Sound sensitivity
Sun sensitivity	Unusual tiredness
Flu-like symptoms, ongoing	Weakness
Skin problems/blemishes/irritations	Sleep problems
Multiple Allergy Syndrome/Multiple Chemical; Sensitivity	

The following can provoke symptoms:

Laptop computers using their mains adapters'
 Battery-operated appliances
 Computer monitors (VDTs, VDUs)
 Telephones, answering machines and faxes
 Televisions
 Mobile phones
 Refrigerators, freezers, electric cookers, vacuum cleaners etc
 Fluorescent lights
 Pylons, substations
 Electric fields due to house wiring
 Fire alarms, burglar alarms
 Electrical 'noise' in trains, buses and cars
 Hearing-aid induction loop

Some of the causes of electrical hypersensitivity which have been proposed are:

- The fields that surround VDUs, computers and cables can give rise to dermatological and neurological damage.
- Positive ionization of the air. Certain people experience a reduction in symptoms when the working place air is ionized using a negative ionizer. (However some ionisers contain a transformer which gives off high magnetic fields close to.)
- Disturbances in the immune system or hormone balance. The symptoms of electrical hypersensitivity have a resemblance to rheumatic reactions connected with the auto immune system. There are indications that the auto immune system itself becomes disturbed.

MICROWAVE RADIATION - US MILITARY RESEARCH

US EMBASSY – MOSCOW

In 1959 during the Cold War the Embassy staff had been feeling unwell for some time. Investigation proved that they were being irradiated by directed, pulsed microwave at very low power levels (far below current Western safety limits). EMR screens were erected around the Embassy's external walls. The staff were reassured that no lasting damage to health had occurred but a covert 13 years of health monitoring revealed an increase in pregnancy abnormalities (as is the case today), various blood disorders and cancers among other health setbacks. The findings from this de facto experiment on live humans should have given stark warning to cellular phone manufacturers many years later.

US DEFENCE INTELLIGENCE AGENCY 1976

In their document OST – 18105 – 074 – March 76 this Agency warned that very low level (non thermal) microwaves may allow neurotoxins to cross the blood-brain barrier, which could lead to severe neurological symptoms.

US MILITARY RESEARCH LABORATORY – JUNE 1993

Mindful of Russia's caution in the 1960's, which led to a microwave exposure limit 1000 times lower than in the West, this laboratory unilaterally lowered its safety limit for the 30 MHz to 100 GHz band. Dr Cletus Kanavy wrote about the Soviet findings of 'deleterious biological effects from exposures well below US safety limits,' (published in the late 1980s).....'is abundant with information on **non-thermal** effects.....principle electro-magnetic biological effects of greatest concern are **behavioural aberrations**, neural network perturbations, embryonic tissue damage (hence birth defects) cataractogenesis, altered blood chemistry, metabolic changes and suppression of the endocrine and immune systems.'

COMMENT

These findings from research going back to the 1950's are consistent with what we know of microwave dangers today. Annex C looks more specifically at the microwave/ELF threat **to the brain**.

THE POWER OF ELF TO UNBALANCE MIND AND BODY

1984 US PENTAGON RESEARCH

After earlier successes, US research into mind control – using electromagnetic radiation and EMF’s – to produce brain changes at a distance was increased. Below is a transcript of US scientist Eldon Byrd’s taped report (edited for brevity, etc., in brackets – italics are our’s).

“We can alter the behaviour of cells, tissue, organs and whole organisms...the levels of hormones in living creatures...the reaction time of irreversible chemical processes, as well as the chemistry itself, in a living cell. We can alter time perception in humans and animals...make animals go to sleep...make bone grow...and stop growing. We can start and stop cell differentiation (re-programme a cell to change its function). We can inhibit and enhance what messenger RNA does in a cell...regulate immune processes and affect calcium ion binding on cells (deemed a critical part of decay into ES)...important because most of the *chemical processes in the human brain seem to be mediated by calcium ions*. We can *entrain human brainwaves*...this has been proven and replicated many, many times now. We can turn the DNA transcription process on and off at will. *We can cause profound alterations and defects in embryos in the gestation period* by directly enacting fields with the growing organism. We can cause up to six times higher foetus mortality and birth defects in laboratory animals with fields so weak *you can hardly detect them*. (Also) slow down or speed up the ageing process (and so) slow down or extend “cell life”.

These are only some of the results of interactions of weak, *pulsed, usually ELF magnetic fields and living organisms.*”

LESSONS FROM THE COLD WAR

The Use of ELF for Mind Control

After military training in the use of radiation for stealth warfare, Barrie Trower, now an independent scientist, spent much time debriefing various governments who were using stealth radiation of dissidents and spies – for several weeks if necessary – to weaken resolve and extract information. Over the years he built up a record of *entrainment* responses by the brain, slightly different with each subject, but always involving the same brain areas – temporal, amygdaloid temporal, parietal, etc. His record provides valuable confirmation of the power of ELF over the human mind. Whilst the carrier wave was of microwave frequency, its pulse or modulation rate varied in the ELF range.

<u>Pulse in Hz</u>	<u>Usual Effects</u>
3-5	Paranoia, hallucinations, amnesia, illusions, drowsiness, “absent feelings”
6-7	Depression, confusion, suicidal feelings, visual distortion
8-11	Inability to relax, feeling unwell/unhappy
11-13	Anger and manic behaviour, problems with movement, loss of appetite
14-18	Small seizures, disturbed orientation, auditory/visual hallucinations
18+	Inability to make decisions, sensory problems with sight, touch and sound
24-25	Confusion with flickering/flashing lights, dizziness
35+	Mania, hyperactivity
40+	Anxiety, sleep disturbances, slower reaction times, unable to make decisions

THIS CENTURY

In his Dec 2001 TETRA Report for the UK Police Federation, Mr Trower confirmed that TETRA’s frequency of 17.66 Hz rendered subjects indecisive when under the stress of an emergency – a concern for

the three emergency services. In the context of aberrant behaviour, 11-13 Hz frequencies (see above) induced anger and manic behaviour. Today, pulse rates around this level are used by 3G mobiles and WiFi.

Frequencies of 10-20 Hz are thought to interfere with human resonance and the brain's own bio-signalling frequencies. Frequencies of 16-18 Hz caused leakage of calcium ions in the brain, vital for neural activity.

The Brain's Frequencies in Hz

1-4 Delta	12-30	Beta
4-8 Theta	30-100	Gamma
8-12 Alpha		

Entrainment

When a brain frequency is influenced by an artificial, stronger frequency it adopts that frequency – it is entrained. Analogy: A man bouncing on a trampoline at a set rhythm is joined by another, heavier man who sets a different frequency of bounce, so entraining that of the first man.

SUMMARY

Electric and magnetic fields from the ELF power supply of 50/60 Hz – non pulsed – had caused serious sensitivity and health problems before the microwave era. Today, almost everyone is under 24/7 assault from the jackhammer blow of **pulsed** ELF on brain integrity, riding tandem with destructive microwaves.

FREIBURGER APPEAL (9TH OCTOBER 2002)

Over 1,000 German-medical doctors have signed an appeal – the Freiburger Appeal – calling on the German Government and other authorities to reduce the exposure of the population to pulsed, microwave radiation, specially from mobile phone technology, because of their observed increase in many illnesses.

The following extracted from their full statement which other medical doctors are invited to sign (www.hese-project.org).

Out of great concern for the health of fellow human beings do we – as established physicians of all fields, especially that of environment medicine – turn to the medical establishment and those in public health and political domains, as well as to the public.

We have observed, in recent years, a dramatic rise in severe and chronic diseases among our patients, especially:

- Learning, concentration, and behavioural disorders (e.g. attention deficit disorder ADD)
- Extreme fluctuations in blood pressure, ever harder to influence with medications
- Heart Rhythm disorders
- Heart Attacks and strokes among an increasingly younger population
- Brain-degenerative diseases (e.g. Alzheimer's) and epilepsy
- Cancerous afflictions: leukemia, brain tumours

Moreover, we have observed an ever-increasing occurrence of various disorders, often misdiagnosed in patients as psychosomatic:

- Headaches, migraines
- Chronic exhaustion
- Inner agitation
- Sleeplessness, daytime sleepiness
- Tinnitus
- Susceptibility to infection
- Nervous and connective tissue pains, for which the usual causes do not explain even the most conspicuous symptoms.

Since the living environment and lifestyles of our patients are familiar to us, we can see – especially after carefully directed enquiry – a clear temporal and spatial correlation between the appearance of disease and exposure to pulsed high-frequency microwave radiation (HFMR), such as:

- Installation of a mobile telephone sending station in the near vicinity
- Intensive mobile telephone use
- Installation of a digital cordless (DECT) telephone at home or in the neighbourhood

We can no longer believe this to be purely coincidence, for:

- Too often do we observe a marked concentration of particular illnesses in correspondingly HFMR-polluted areas or apartments;
- Too often does a long term disease or affliction improve or disappear in a relatively short time after reduction or elimination of HFMR pollution in the patient's environment;
- Too often are our observations confirmed by on-site measurements of HFMR of unusual intensity.

On the basis of our daily experiences, we hold the current mobile telecommunications technology (introduced in 1992 and since then globally extensive) and cordless digital telephones (DECT standard) to be among the fundamental triggers for this fatal development.

One can no longer evade these pulsed microwaves. They heighten the risk of already-present chemical/physical influences, stress the body's immune system, and can bring the body's still functioning regulatory mechanisms to a halt. Pregnant women, children, adolescents, elderly and sick people are especially at risk.

Our therapeutic efforts to restore health are becoming increasingly less effective; the unimpeded and continuous penetration of radiation into living and working areas – particularly bedrooms, an essential place for relaxation, regeneration and healing – causes uninterrupted stress and prevents the patient's thorough recovery.

In the face of this disquieting development, we feel obliged to inform the public of our observations – especially since hearing that the German courts regard any danger from mobile phone radiation as 'purely hypothetical' (see the decisions of the constitutional court in Karlsruhe and the administrative court in Mannheim, Spring 2002).

What we experience in the daily reality of our medical practice is anything but hypothetical! We see the rising number of chronically sick patients also as the result of an irresponsible 'safety limits' policy, which fails to take the protection of the public from the short-and long-term effects of mobile telephone radiation as its criterion for action. Instead, it submits to the dictates of a technology already long recognized as dangerous. For us, this is the beginning of a very serious development through which the health of many people is being threatened.

We will no longer be made to wait upon further unreal research – which in our experience is often influenced by the communications industry – while evidential studies go on being ignored. We find it to be of urgent necessity that we act now!

Above all, we are, as doctors, the advocates for our patients. In the interest of all those concerned, whose basic right to life and freedom from bodily harm is currently being put at stake, we appeal to those in the spheres of politics and public health. Please support the following demands with your influence:

- New health friendly communications techniques, given independent risk assessments before their introduction

And, as immediate measures and transitional steps:

- Stricter safety limits and major reduction of sender output and HFMR pollution on a justifiable scale. Especially in areas of sleep and convalescence
- A say on the part of local citizens and communities regarding the placing of antennae (which in a democracy should be taken for granted)
- Education of the public, especially of mobile telephone users, regarding the health risks of electromagnetic fields
- Ban on mobile telephone use by small children and restrictions on use by adolescents
- Ban on mobile telephone use and digital cordless (DECT) telephones in preschools, schools, hospitals, nursing homes, events halls, public buildings and vehicles (as with the ban on smoking)
- Mobile telephone and HFMR-free zones (as with auto-free areas)
- Revision of DECT standards for cordless telephones with the goal of reducing radiation intensity and limiting actual use time, as well as avoiding the biological critical HFMR pulsation
- Industry-independent research, finally with the inclusion of amply available critical research results and our medical observations.

WIRELESS FIDELITY (WIFI): CASE STUDIES

TEACHERS

John Fox 2003 Had a bad experience with WIFI at home; it was removed after he and his family had various ES symptoms after a few weeks. In early 2004, his school decided to install WIFI but reassured him that his block would have hard wired computers (next to his classroom). In September 2004 WIFI was installed but after 5 weeks in his 'safe' classroom he was 'tired, losing my concentration and felt as though I was losing my mind'. Unbeknown to him WIFI had been penetrating his area from elsewhere in the block. His Headmaster agreed at once to switch all WIFI routers off and he soon made a full recovery. He is 59.

Michael Bevington 2007 Also suffered badly after a WIFI router was installed this time inside his classroom. Quickly developed headaches, heart palpitations, nausea, dizziness and pains all over his body. Sadly, whilst the WIFI was soon removed, it had triggered ES, perhaps EHS. Recovering from the worst symptoms he was shocked to discover via the Internet that ES was so common all over the world, with its many triggers including WIFI cited in 100's of cases.

DOCTORS

Dr Francesca Fox MB ChB Nov 01 (Age 49 then) Her 2.4GHz WILAN (the early WIFI) had irradiated her home 24/7 when she began suffering from ectopic heart beat and variable pulse rate. After 6 weeks the arrhythmia worsened until she realized WILAN was the cause and removed it. Her chest tightness and oxygen deficiency improved over 3 weeks until her symptoms vanished. Poor sleep and energy returned to normal. Her family also suffered. Her 18 year old daughter from dizziness, her son (22) from vomiting and vertigo after a spell near the router. This practicing doctor said 'if this is how it affects a healthy family of adults over a short period of time, what will be the consequences on a cross section of the population...the pregnant and the young? What is the real price of convenience?

Dr Carlos Sosa MD – US Physician & Surgeon – 2006 In May 2006, Dr Sosa was forced to vacate his apartment in Medellin USA due to WIFI irradiation from a nearby source (and subsequently 5 successive apartments all over the city.) Onset of symptoms included malaise, headaches, dizziness, nausea, insomnia, irritability, lack of concentration, amnesia/forgetfulness and 'a burning candle sensation in the occipital area of his brain'. Finding over 4000 cellular phone masts in the city and WIFI wherever he searched, he had by now become EHS and with his family, also affected but less severely was forced to flee.....a Radiation Refugee. Dr William Rea diagnosed 'a toxic encephalopathy, dysantonomy and immune dysregulation' – all due to microwave radiation.

His detailed account does not identify WIFI's second pulsed ELF frequency but ascribes his illness to Microwave Syndrome as originally described by Soviet investigators:

- 'A neurasthenic syndrome: 7 subheadings – fatigue, headaches etc
- A cardiovascular syndrome: biocardia, tachycardia, high/low blood pressure
- A diencephalic syndrome: memory, concentration, insomnia etc problems
- And 17 other listed effects including Parkinson's and Alzheimer's disease

Dr Sosa deplors the total lack of medical training in Electrosmog's dangers, any mention of them in medical publications and the ignorance of the engineers and physicists etc who created all these dangers. 'That's the reason why so many of us are ill or dying.'

Case Study Faisal Khawaja (28) Photographers's Assistant Became ES then EHS after heavy use of mobile phone and laptop. DECT phones and all his equipment induced such sharp reactions, he was forced to resign. Toward the end it was incoming WIFI radiation that destroyed the last of his resilience and forced him to move. 'I had lost everything I trained for'. Several moves further and further away from London and built up areas to escape WIFI and mobile phones masts brought no relief. 'Every time my neighbour goes wireless (WIFI) I have to find somewhere else to live.'

This classic example of a 'Radiation Refugee' has now found a home in the Cotswolds, with no neighbours within 45 metres and is retraining as an artist (we must hope the clearance is enough for him).

27 year old Law Student (Name withheld at his request) In June 2008, the Ilkley Gazette (Yorkshire) reported this sad case of another Radiation Refugee. He was a healthy, vigorous man in 2004, then bought a WIFI 'router' for his home. Three months later he was afflicted by constant headaches, fatigue, poor sleep, nosebleeds (and tell-tale face tingling). Soon lost interest in his computer, so disconnected the WIFI but not before test scans and his GP had revealed no known cause. Then within weeks, his symptoms had almost gone.

After a move to a Leeds flat – to study Law – bad symptoms soon set in again – only worse – with insomnia, vomiting and passing out. Utterly bewildered by this second collapse in his health he often thought of suicide. He could not study...or spend over an hour in the flat.

Fortunately his new GP made a rare, enlightened diagnosis of possible effects from EMR, soon 'proved' with a microwave detector that showed high levels in his flat from other flat dwellers (and from outside?). Avoidance, now his key to survival, he sought refuge in the countryside by day, but with increasing difficulty due to its saturation by EMR, and sleeps in his parents' basement by night. He fears – as we all do – the arrival of digital TV and WIMAX.

He now despairs over his ruined life, shattered career prospects and hopes for a family. His strong will should sustain him; he is determined to fight for recognition and correction of this 'invasive human experiment'. He may buy a US military tent (£3,000) lined with copper/silver. 'At least I would have somewhere to go but you can't just live in a tent or raise a family.'

Residential Care Homes. The author's personal experience with the elderly confirms that ignorance of WIFI (and DECT telephone) dangers is causing some residents serious distress – avoidable if only visiting doctors would confirm rather than refute their potential hazards for the vulnerable. One 95 year old, fit for his age entered a Care Home for mobility and minor nursing needs. Hitherto alert, and as well slept as one might expect, his decline over just 2 months has been alarming: dazed, dizzy and almost sleepless he is now in misery. His previous home had no EMF from within; this "Care" Home has *very* high levels of pulsed, microwave radiation from in-house devices, as measured by meter.

This microcosm of a global problem for the elderly in need is why the EHS, effectively disenfranchised from such care, so fear their dotage: to receive such 'care' now would only hasten their end.

Sky Broadband. And now the advent of free WIFI routers, for every home that takes up this service, threatens to overwhelm neighbourhoods with a near ubiquitous, exponential rise in their intermeshing toxic radiation.

SIGNS AND SYMPTOMS OF ELECTRICAL SENSITIVITY/HYPERSENSITIVITY 2008ONSET – EXPOSURE TO EMFS/EMR FROM RESTED STATE

Feeling of pressure on head, especially in ears which can hurt and tinnitus may flare up. Tingling, red patches on skin – slight warmth. Senses cloud over. Weakness sets in, slight nausea. Any feeling of wellbeing is soon lost. Symptoms then develop all over and worsen as exposure remains or increases. Headaches and hair loss.

BRAIN

- Sleep Delayed interrupted usually shallow sleep – or insomnia. Therefore loss of ‘vital Phase 1 deep (repair) sleep. Wake feeling tired. Listless during day, drowsy, need catnaps.
- Thought ‘Seizes up’ – becomes ‘wooden’, even confused and wandering; inability to reason, concentrate or focus. Great strain to fight through it when socialising or at work. Compulsive, repetitive thought. Prone to clinical depression. Suicidal feelings.
- Memory Poor or loss of memory, anomia (poor word recall). Learning difficulties. Link to:
- Speech Can quicken on first exposure, then slows and becomes hesitant – blurted style (indiscreet/silly?). Frequent ‘slips of tongue’
- Writing Becomes slow, laboured, difficult to form words. Pen/hand can suddenly jerk off the page; miss letters. (A fluent hand can be good sign that ES victim is not too stressed).
- Behaviour Anxiety, panic attacks, irritability, aggression, restlessness, changes in innate and acquired behaviour: aberrant, out of character....irresponsible, illogical, even criminal? OR
- Apathy Loss of: previously strong will power, determination, drive and zest for life; feelings of helplessness.
- Dysfunctional State After too much exposure, especially from DECT phones, WIFI and, in the UK, TETRA, victim is traumatised into a state of ‘suspended animation’. Cannot think, read, write or even listen. Episodes of collapse – or unconsciousness (rare).

EYES

- Dry, itchy, sunken, ‘heavy feeling’; swollen, inflamed; ‘floaters’. Light flashes on head movement.
- Dark rings under (poor sleep and ? chemicals)

EARS

- Hearing defects, especially high tone loss
- Tinnitus: hissing, buzzing, ‘whooshing’ – usually permanent at lower level, then flares up on increased exposure.
- Difficult to use telephone – even corded analogue can induce pain in ear and trigger wider symptoms. Tolerance fluctuates.
- Loss of balance, vertigo, dizziness
- Hypersensitivity to noise; odd noises/sounds ‘in head’.

NOSE

- Swelling and redness – often flare up of pustules
- Some lose sense of smell; and so taste
- Sinuses Feeling of swelling, sinusitis type symptoms

MOUTH

- Dry, scaly lips; dry tongue and mouth especially at night.

TEETH/JAW

- EMR (especially WIFI) can induce serious pain and sensitivities in teeth/gums from amalgam fillings, even into jaw. So bad at times the victim cannot chew food. Whole mouth 'on fire'. EMFs will exacerbate. ES know best to escape and recover, before seeing dentist!
- Fillings deteriorate; teeth grinding at night.

MANNERISMS

- Facial twitches; nervous ticks
- Head nodding, jerking

NECK

- Stiffness, pain (like cervical arthritis)
- Throat pain 'lump in throat'
 - Speech – can hurt/exhaust to speak; 'tight feeling'
 - Thyroid gland disorders

LUNGS

- Dryness of upper respiratory tract
- Scientists claim that EMFs/EMR can highly charge minuscule particles in the air at home (viruses, bacteria, allergens and toxic pollutants) which hit lung tissue at abnormal speed, deform and so stick there. This can increase risk of bronchitis, pneumonia and asthma. Asthmatic patients often feel pronounced relief if away from home in relative electrical safety for a while.

HEART AND CIRCULATION

- Tachycardia (heart palpitations)
- Arrhythmia (irregular rhythm)
- Irregular pulse rate
- Spells of high/low blood pressure
- Temporary shortage of oxygen/breath
- Impaired circulation – chills – hands/feet cold
- Cardiovascular collapse

THORAX

- General aching/pain comes and goes

ABDOMEN

- Intestines Diarrhea, urgent bowel movements at say 0400. Conversely – in last 2 years or so, unusual constipation in babies – over 7 days without a bowel movement – considered not to be unusual by new parents. (Peristalsis subdued by EMR?) Cases of internal bleeding in adults.
- Kidneys/Bladder Impaired rate of flow to bladder, difficulty in passing urine quickly. Symptoms in men identical to prostate cancer/BPH but in fact form of 'prostatitis' due to EMF/EMR. Conversely, cases of leakage – sphincter muscle weakened or loss of involuntary control. Cases of bed wetting under WIFI EMR. Aching, throbbing pain over kidneys....and liver.
- Liver Bile flow subdued – liver function impaired – clear signs in stools. Escape brings relief.

SKIN

- Adult acne is common complaint
- Alterations to texture and shade
- Slow healing of wounds. Burning sensation – deep at times.

- Numbness, itching, ‘pins and needles’ in fingers/toes
- Soreness, sensitive to sunshine
- Broken capillaries on face if sit near microwave oven
- Subcutaneous loss of connective tissue (pages 12 and 13) causing eg difficult vein penetration if giving blood – veins wobble away from needle

GLANDS

- General swelling especially lymphatic and thyroid

PAIN/OTHER SYMPTOMS

- Pain in soft tissue; muscle pain – burning sensation
- Cramp and twitches especially in legs and feet

METABOLISM

- Often dysfunctional – can lead to persistent weight loss or conversely gain
- Altered sugar metabolism
- Increased thirst, dehydration
- Redistribution of heavy metals in body (link to autism?)
- Loss of, or excessive appetite
- Pronounced but fluctuating weakness (cell membranes closing off influx of nutrients to energy producing mitochondria. Permanent low level EMR induces chronic nitrosative / oxidative stress and so mitochondriopathy (Warnke 2005) with irreversible DNA damage that may be inherited).

FERTILITY

- ES or not, men who use mobiles more than 4 hours a day have lower sperm counts and poorer quality sperm compared to non-users. In the USA it is estimated that some 30% of men are effectively sterile due to Electrosmog.
- Ovulation, menstrual problems ascribed to Electrosmog are well documented.

GENERAL WELLBEING

- A volatile condition with bad days and better days. Trying to cope with such a ubiquitous threat is a strain in itself. Relief from all EMF/EMR for just a few days can restore some sense of wellbeing and ability to get on with the essentials of life, but such escape is almost impossible nowadays.
- No one suffers from all the symptoms listed above. Those who can still sleep well (safe from DECT/WIFI) may feel well briefly but to venture outside into the ‘real world’ will soon rob them of any sense of wellbeing; stamina, libido, composure and happiness all seem to have gone in so many EHS victims.

SUMMARY

A decade ago it was said that the onset and severity of ES depended upon age and general health: young adults had minimal sensitivity to Electrosmog; the unborn, children and the elderly, and those with psychological or physical disorders were most at risk all the way to fatal outcomes.

Today, under the constant onslaught of self-imposed EMR, unavoidable Electrosmog and, especially, pulsing ELF/EMR from dangerous wireless technology, virtually everyone is at risk. It is clear that Electrosmog is attacking the most sensitive systems in the body: nervous, immune, endocrine and reproductive.

RECENT EVIDENCE, REPORTS AND STUDIES
HARM AND DEATH FROM ELECTROSMOG

The Bioinitiative Working Group Report 21 August 2007

This important report is at <http://www.bioinitiative.org/report/docs/report.pdf>. From an influential and respected Group, it clearly records adverse health effects from Electrosmog, concludes that existing public safety limits are inadequate to protect public health and recommends *much* lower limits than currently prescribed by the ICNIRP and *even* the US FCC. Significantly it feels “limits on further deployment of *risky* technologies” are warranted.

“Microwave News” 17 January 2008

“...most close observers now believe that *the epidemiological data* (our italics) show that a health risk from mobile phones *can no longer be dismissed*”.

Mobile Manufacturers Forum (MMF) Study 2007

Funded by the MMF, staffed by scientists from the esteemed Karolinska Institute/Uppsala University in Sweden and from Wayne State University, Michigan USA. Published by the Institute of Technologies Progress in Electromagnetic Research, the findings caused deep concern. One top sleep expert – “There is now more than sufficient evidence” to show that mobile phones “affect deep sleep”.

35 men and 36 women between 18-45 were exposed in the laboratory to either simulated 1G cellular phone radiation at 884 MHz or to sham exposure one hour before bedtime. The vital first phases of *deep* sleep were elusive for all the real exposure section, who took longer to enter the first phase and slept for less time in the deepest one.

About half of all subjects claimed to be ES and so, perhaps, were more likely to be tense in the laboratory, resulting in several with only sham exposure still sleeping poorly. This was not so: the ES could not sense if they were exposed or not, and those with sham exposure slept well enough.

Prof. Bengt Arnetz, who led the study, ascribed the poor sleep to the brain’s stress system “making people more alert” and less able “to wind down and go to sleep”. He robustly rejected belated attempts by the MMF to “downplay” his findings.

Swedish Study 2007

The most comprehensive review yet on the dangers of mobile phone use for over 10 years (cancers, etc. may take 10 or more years to appear), this collated 11 high quality studies from Scandinavia, Japan, the USA and UK into brain risks. Prof. L Hardell (University Hospital, Orebro) and Prof. K Hansson Mild (Umea University), who led the review, concluded there was a consistent pattern of increased risk of malignant glioma (brain tumour) and acoustic neuroma (benign tumour of the auditory nerve that usually causes deafness in that ear). After 10 years of use, mobile phone users’ increased risk – probability of developing the tumours – was assessed as:

- Glioma – 30% - twice as likely to be on phone side.
- Acoustic Neuroma – 20% - 2.5 times as likely to be on phone side.

Since 10 years is the minimum period normally required for cancer to develop, Prof. Hansson Mild felt many more victims were likely after 15, 20 or 30 years of use. He endorsed a growing concern that mobile phone use could be linked to Alzheimer’s and Parkinson’s Disease. (*We would add, early onset strokes and cite Electrosmog in general*).

WHO Study “Interphone” (Ongoing) – As at Sep 2007

Interphone is studying 7,000 brain tumour patients in 13 countries including Japan, Canada, Germany and France. In April, 2007, it published its findings from 1,500 brain cancer patients in Scandinavia and the South of England. The study found “a significantly increased risk of brain cancer on the same side of the head where mobile phones had been used for more than 10 years”. The study will continue, to see if more statistically significant evidence emerges.

On Radio 4 on 27th July 2008, Dr Ronald Herberman, Director of cancer research at the University of Pittsburg Cancer Institute, dismissed the PR mantra of the mobile phone industry that the cancer risk with mobile users was no worse than with non-users. He is disturbed by the Study’s findings to date and has instructed his staff to observe simple precautions protempis:

- Keep the phone as far from the ear as possible, using speaker mode and texting
- Minimise use of all other wireless devices

He is particularly concerned about the risk of acoustic neuromas which, like tobacco-related lung cancer, can grow for a long time, undetected. There has been a large increase in these tumours in the USA and UK in recent years.

Report by Australian Democrats Dec 2007

Noted a sudden increase, over the last 15 years, in illnesses which could correlate with the huge expansion in wireless devices; the increase is on a global basis. They note with concern that ambient EMR is the only environmental pollutant not subject to regulation.

Report by US National Research Council Jan 2008

Urges more research into long-term (10-30 years) dangers of mobiles. Concerned about compounding effect of radio, TV and other wireless devices and the vulnerability, potentially increased, of the unborn, children and pregnant mothers. Possible links to brain cancer, neural or cognitive complications are cited.

Report by Australian Centre for RF Bio Effects Research Jan 2008

A study into mobile phone effects on 40 children aged 12-13 is in progress. One study on 110 adults confirmed mobile phones cause a change in brain function by altering alpha brain waves.

Report by French Ministry of Health, Youth and Sport

Warned of excessive use of mobiles, especially by children, in view of studies indicating long-term dangers. Gave advice on restricted use by children.

Study by Finnish Radiation and Nuclear Safety Authority

Showed mobile radiation altered protein expression in forearm skin of 10 female volunteers exposed to a non-thermal 900 MHz signal at SAR 1.3 W/Kg (ICNIRP limit is 2.0 W/Kg). After one hour, comparison with unexposed area showed 8 differentially expressed proteins, with 2 present in all 10 volunteers, confirming in vitro studies with a similar result.

Report by Extradia Ltd Feb 2008

Reported that 83% of 4,400 people from the UK, Germany, France and Spain were ***concerned about the health dangers of mobiles***, a 10% increase since the EU Reflex study of 2004. Over 90% thought their government was not doing enough to warn parents about the risks to children from mobile phone usage.

WARNINGS IN 2008

The Russian National Committee on Non-Ionising Radiation Protection said that the health of future generations of children is under threat from mobile phone handsets. (April)

The International Commission for Electromagnetic Safety made an urgent call for lowered limits, stating that non-thermal EMF bio-actions have been proven. (June)

In France 20 scientists and cancer experts appealed to limit mobile phones. (June)

In Australia a top cancer oncologist warned that mobile phones “were no longer safe” (*They never have been!*) (April). And an eminent neurosurgeon warned Governments that EMR was a worse threat than smoking or asbestos.

CASE STUDIES

Director General of WHO Nov 2002 (Not “recent” but significant)

Gro Harlem Bruntland, PM of Norway for 10 years, and a medical doctor, became EHS during her tenure, reacting severely to at first her own, then others’, mobile phones within 4 metres - local warmth in the ear, then strong discomfort and headaches. She had instant headaches from DECT phones and then, if holding her laptop, a bad reaction to that. Recognising EHS, she advised caution and that all should follow the “precautionary principle”. (See also Dr Fox – Annex E)

Michael R Bennett – August 2006 California

Used a Samsung mobile phone from August 2003 to December 2005, then a Motorola phone to April 2006, for business/personal calls. On 23rd August 2006 he suffered “...a sudden loss of hearing in his right ear, vertigo, loss of equilibrium and other personal injuries...” related to this cellular usage. His injuries persist so he is suing both firms, citing “the (dangerous) EMR from both phones, resulting from improper and unsafe design”...etc...”and the failure of Samsung and Motorola to adequately warn of such dangers”.

Neil Whitfield (49) - 2007

Lost his hearing from acoustic neuroma on phone side of head after heavy use of mobile phone over (?) years. Had to retrain for another job after 12 months off work, to become a teacher with £20K drop in income, “Devastating effect on my family. Mobile phones are the cigarettes of the 21st century; they should have health warnings on them”.

Faisal Khawaja (28) - 2007

After using his mobile at work for some 12 months he developed headaches on the side of use, then clear fluid began to ooze from the ear. He had a feeling of pressure inside both ears. He became EHS, then WiFi “ruined my life”. More details at Annex E.

Our Comment: Here is clear evidence of physical harm from a mobile phone – fluid oozing from the ear. Should not just this one case have called into question the safety of mobile phone technology and led to widespread warnings, investigation and rectification? How *could* the Mobile Industry ignore, and be permitted to ignore, such stark signs of danger?

Mr Van Onselen (38) – July 2008 West Rand, S Africa

About 12 months ago, after many years of heavy cell phone use as a Policeman, he noticed “a strange little growth just in front of his right ear. It grew, gave pins and needles, then numbness during long calls *in his car*”. (Requires high power transmission levels). A biopsy has proved skin cancer that requires surgery. The cancer site is directly under the mid-point of his mobile phone when held to his ear. We must hope his inner ear etc. has escaped.

MOBILE PHONE BASE STATION MASTS

BAHRAIN - Muharraq Municipal Council - Feb 2008

Extended its **ban on new mobile phone masts** indefinitely, until its Regulatory Authority proves they are safe. The MMC Chairman, a certified telecommunications engineer with 11 years experience, is concerned that any such radiation, no matter what its level, could endanger health. Radiation levels were reportedly said to be similar to the UK.

USA

Augusta, Georgia

Officials have **banned phone masts** altogether in most residential areas, but raised the mast height limit to 350 feet in some rural parts.

Pasadena, California

Has a **moratorium on cell tower construction** in residential areas – April 2007 to June 2008. The Deputy City Attorney, Javan Rad, said “We need to come up with an ordinance that allows us to regulate to the furthest extent, **considering that Congress and state law has limited the city’s regulatory power in this area**”.

UK

Norwich

In March the city councillor, Rupert Read, said “the Green Party has called for a **complete moratorium on new mast-building** in the area as the current network coverage is thorough. Greater investigation is needed into the studies that have shown a possible link between masts and the occurrence of illnesses such as cancer in the surrounding areas. We would like to see the current **planning rules strengthened to give councils complete power over where any masts are sited and to allow councils to consider the possible health effects of masts to residents when determining applications**”

Coulsden, Croydon – April 2008

Mast blockade – Parents of children at a school have blockaded contractors from phone operator T-Mobile who were trying to erect a mobile mast just yards from the Primary School. The parents, who together have formed the Radio Action Group, used their cars to stop a crane reaching the proposed site. They point out that there are already 15 masts within a single square mile of the school, as well as clear scientific evidence that mobile phone radiation can have a damaging effect on the health of young children. This action is typical of blockading cases in many countries in recent years.

FRANCE

In Lyon the City agreed in February to adopt the precautionary principle and **remove the phone mast** in the Victor-Hugo elementary school and **stop phone masts** in three other schools during lessons. The school recently had two illnesses, leukaemia and lymphoma, in children about 10 years old in a classroom on the 2nd floor, close to the base station and an electrical cabinet on a roof terrace. Parents demanded that the base station be removed and not just turned off. They also wanted to lower the threshold to 0.6 V/m, with independent and continuous measurements.

ITALY

The Catanzaro Against Electrosmog committee reported that the district attorney of Paola adjourned the trial (due for 13th March) of a telephone company’s managers for **5 deaths from the same family** living near one of the company’s buildings.

GUERNSEY

The director general of the Office of Utility Regulation said “We are aware of the concerns about emissions generally from mobile phone masts, and we will soon be starting a review and **audit of the emissions** of every mobile phone mast in Guernsey”.

SPAIN

In February Zarzaquemada residents in Leganes, Spain, demanded “the immediate suspension of mobile phone relay antennas” in urban areas until there is research to show that they are harmless. This was after **10 cancer cases** in the same building.

INDIA

The Economic Times reports that India will soon unveil safety guidelines for base stations and mobile handsets. It is **likely to ban masts near schools, hospitals** and rooftops of large **residential buildings** “because children and patients are more susceptible to electromagnetic fields; children under 16 will be discouraged from using mobile phones. **India has not adopted ICNIRP’s guidelines**. Makers opposed giving the specific absorption rate (SAR) in the handset screen menu, since it’s “in the user manual”.

CONCLUSION TO AMY WORTHINGTON'S ARTICLE ON ELECTROSMOG IN THE USA –
PUBLISHED IN IDAHO OBSERVOR SEP 2007

America must soon face its radiation cataclysm. The EMR Network says that millions of workers occupy worksites on a daily basis where operating antenna arrays are camouflaged and where no RF safety program is carried out. Thanks to shameless predatory advertising techniques, American youth are now literally addicted to 'texting', watching TV and accessing the Internet on tiny wireless screens. These are the toys that keep cell towers and Wifi hot spots buzzing. A nation that requires compulsory mass irradiation to fuel its trivial entertainment needs is surely destined to have a sickly short-lived population.

Right now, 11.7 million Americans have been diagnosed with cancer. Because humans can harbour cancer conditions for years before detection, additional millions of cancer victims are yet undiagnosed. The Journal of Oncology Practice predicts that, by 2020, there will be so many cancer cases in the US that doctors may not be able to cope with their caseloads. The report concludes the nation could soon face a shortage of up to 4,000 cancer specialists.

A recent CBS news series on the raging American cancer epidemic left viewers with the mindset that trainloads of federal cash must flow if we are to find the cancer answer. But the cancer cause now inundates our cities, roadways, schools, offices and homes. Any environmental stressor that jackhammers human cells at millions to billions of cycles per second is a cancer factor. Any wave-pollution that breaks the DNA and causes pre-cancerous micronuclei in human blood is a cancer factor. Logic tells us that there will be no 'answer to cancer' until we eliminate the cancer factors.

Wireless communications radiation is to America today what DDT, thalidomide, dioxin, benzene, Agent Orange and asbestos were yesterday. Historically, the truth about the public health menace of extreme toxins is never told until thousands sicken and die.

Dr Robert Becker, noted for decades of research on the effects of electromagnetic radiation, has warned: 'Even if we survive the chemical and atomic threats to our existence, there is a strong possibility that increasing electro pollution could set in motion irreversible changes leading to our extinction before we are even aware of them. All life pulsates in time to the earth and our artificial fields cause abnormal reactions in all organisms. These energies are too dangerous to entrust forever to politicians, military leaders and their lapdog researchers.

Our mission to save the nation's health and restore sanity in the wireless age seems daunting. The wireless juggernaut is an aggressive, mean machine. Federal regulators are clearly compromised and incompetent to protect public health. Uninformed consumers dearly love their magical digital toys and don't yet understand the connection between these toys and a national raging cancer epidemic that may consume us all.

Powerful economic interests have lied to us long enough. Americans need and deserve facts. We need dialogue. Wireless radiation is a form of electronic trespass. America must decide whose rights are more important: idlers beaming death rays for gibberish or the elderly with pacemakers who are made ill by cell phone and tower radiation wherever they go. Must we all prematurely perish so that wireless enthusiasts can capture cell phone photos and instantly send them for processing via carcinogen express? Does a human being have the right to NOT be forcibly WiMAXED into a coffin, or do only wireless providers and their devotees have rights?

THE BEES - AND THE BIRDS

POLLINATION – OR STARVATION

The choice may not be this stark, but the world's bees pollinate some 30% of global food production and bee populations worldwide are in serious and mysterious decline. There are 1000's of bee species, of which the honey bee is the most vital for the role of pollination:

- One third of bees in the US have vanished in just a few years, with similar declines in Europe, China and, especially, in Argentina.
- Beekeepers now refer to Colony Collapse Disorder (CCD). After much research, the blood sucking Varroa mite and certain, new pesticides on crops have been posited as culprits. The problem with this hypothesis is that dead bees are not found in vast numbers in, or near, hives; instead the pattern seems to be one of a sudden, mass exodus – the bees just fly off one day...and disappear
- The UK's National Beekeepers' Association aver that the UK does not suffer CCD "but last winter almost a third of British hives lost their bees" (AlexMoralesBloomberg.com). £10m has been granted to research all pollinators with the bulk expected into honey bees. (Comment: a technique exists for eradication of Varroa mites in hives, and if hives in microwave-free valleys, etc., were monitored, we suspect much taxpayers' money would be saved).
- April 2009 Spanish scientists now hope to have isolated a bee pathogen *nosema ceranae* that is causing CCD and is treatable with the antibiotic Fumagillin. If stricken hives do indeed recover, and still thrive under EMF/EMR pollution, then our hypothesis below is unfounded. Until clear proof we rest our case.

THE INDUSTRIALISATION OF POLLINATION

Faced with this shortage of pollinators, fruit and other food producers have turned bees into long-distance commuters, transporting millions by truck to areas in need: e.g. For three weeks on almond trees in California, then to Washington State to pollinate apple trees – then long hauls again to other areas...blueberries, etc. Sadly, this over trucking is "stressing 1000's of bees to death", thereby compounding depletion problems.

VICTIMS OF ELECTROSMOG?

(With acknowledgement to: Barrie Trower – Scientific Adviser to Radiation Research Trust and others).

Magnetic Sensitivity – The bee is this planet's most sensitive, proprioceptive animal, using the earth's static, magnetic field and its vibrations to feel, position and orientate. To this end they have magnetic materials in their heads, thoraxes and abdomens.

- This delicate magnetic balance is easily and permanently upset by strong magnetic fields artificially introduced into the bees' environment.
- Bees "waggle dance" to communicate within their hives, sending vibrations throughout the honeycomb at a frequency of 200-300 Hz. Certain frequencies from mobile base stations clash directly with those from the bees, obliging them to compete 24/7, without rest.

Resonance – Acoustic vibrations – resonance – can be induced in the bee's brain and body by some of the frequencies in EMR. This is yet more disruption to the bee's delicate, natural balance.

General Sensitivity – There can be Varroa mite-resistant hives in some areas, which may be due to low, ambient EMR helping bees to sustain strong immune systems. In higher EMR areas, just as with human beings, immune systems and metabolisms can be impaired.

EVIDENCE OF CAUSE

A Global Problem – A Common Cause - Bees do not like mobile base station and other wireless EMR. The huge increase in the last few years of this EMR has wrecked their natural habitat in which they have thrived for thousands of years. It can be no co-incidence that bees are disappearing on a scale that seems to have matched the exponential surge in EMR.

"Empirical" Evidence - Mr Ferguson bought a property in Bath but found he was to share it with many nests of bees. After several fruitless attempts to eradicate them he happened to install WiFi; the bees left and did not return. Introducing DECT phone EMR near hives has caused decreases in honeycomb weight and bee numbers. There are instances of hives emptying – at once.

Other Species - Collated research suggests that many other species are affected by common denominators: all have suffered from the installation of nearby microwave transmitters – and either use the earth’s natural magnetic field for navigation and/or they are exposed to ground currents. Species include:

- Butterflies, swamp-life, frogs, ants (which also use the earth’s field for direction), cattle, trees and plants, etc., bats and, of course, birds – have all been cited.

BIRDS

Also in Decline – The Royal Society for the Preservation of Birds (RSPB) has monitored the steady decline of many species since 1970. Out of 247 species assessed, the RSPB now has 40 on its Red List – “globally threatened” – and 121 on its Amber List – species of varying, less serious concern. Farmland birds have declined markedly for well understood reasons over 25 or more years. However, relatively recent losses from two new sub-groups are now in the Red List.

- “Lower Woodland Birds” – Three species now show 30-60% decline.
- “Urban Birds” – Ubiquitous until about 2001, house sparrows and starlings have declined by over 60%.

The RSPB states: “We do not know why these...species have declined and urgently need to find out.

The Reasons? – Irish doctors have claimed that a sub-group of humans are hypersensitive to Electrosmog; German and Swedish doctors go beyond this to ascribe serious disease to EMR. *We know that the reproductive* and immune systems in humans are two of the four systems especially *compromised by Electrosmog*. Laboratory exposure of chick embryos to microwave radiation has caused high mortality rates. It is entirely logical to posit that creatures of delicate and tiny build, like birds, under the relatively massive EMR load, are bound to be overwhelmed. The only surprise is that far more species have not succumbed – yet.

The sparrows, starlings and woodland victims have had no hiding place from this habitat-wrecking radiation, pulsing away 24/7. They have either nested in vain, or not nested at all – and just died off from reproductive failure and, prematurely, from Electrosmog-induced disease. This contention is supported by the Spanish study by Alfonso Balmori Martinez in 2002 of numerous observation sites in Valladolid. The results showed a consistent increase or decrease in sparrow numbers, *depending on the EMR contamination levels at the site (900/1800 MHz)*. *Projecting the detailed findings across to the UK*, the study ascribed the house sparrow collapse in our big cities to the necessarily much higher levels of EMR pollution than is required in our smaller towns, where fewer, more remote transmitters suffice. Now in 2008, we know that London, Edinburgh and Manchester, for example, have almost no sparrows. Relative to 2002, wireless EMR is much more dense today.

NAVIGATION

General Theory – It is felt that many birds, including migratory and carrier – racing – pigeons, navigate with four systems: a solar compass (calibrated by an internal clock), a magnetic compass attuned to the earth’s magnetic field, wind direction and a very keen eye and memory for topography and landmarks.

The Magnetic Compass – Various trials (collated by the Royal Institute for Navigation) from 1971 to 1979, using small bar magnets fixed to pigeons’ backs, led to an inability to perceive local geomagnetic fields when released under overcast skies, and so to the birds’ disorientation. The conclusion was that, given sun, they used their sun compass, *but relied on their magnetic compass as a back-up system for overcast flights*.

Homing in the Microwave Era – This era led at the outset to frequent cases of lost pigeons. To an extent they seem to have adapted, but have to rely much more on their sun compass. Nowadays many a race, starting under sun-less skies, is not a success: trained pigeons will fly around their liberation point for hours before leaving – and, even then, depart in the wrong direction. It was not always thus, and we suggest that their Electrosmog-saturated environment – both at home and away from base – has disrupted (entrained?) their magnetic sensors, perhaps permanently.

SUMMARY

Are birds and bees just some of the “canaries in the Electrosmog mine(field)”, giving early warning of imminent disaster to a higher order? There is a striking similarity in the cell structures of most animals to those of human beings. Loss of heritage and threatened food production are just the vanguard of something awful behind the hill?